The Commonwealth of Massachusetts

Return

of the

Municipal Light Department of

the Town of Marblehead

to the

Department of Public Utilities

of Massachusetts

For the Year ended December 31,

2016

Name of officer to whom correspondence should be addressed regarding this report:

Official title: General Manager

Andrew F. Hadden

Office address: P.O. Box 369

80 Commercial Street Marblehead, MA 01945

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GENERAL INFORMATION

Page 3

1. Name of town (or city) making report.

Marblehead

2. If the town (or city) has acquired a plant:

Kind of plant, whether gas or electric.

Owner from whom purchased, if so acquired.

Date of votes to acquire a plant in accordance with the provisions of

chapter 164 of the General Laws.

Record of votes: First vote: Yes, ; No, Second vote: Yes, ; No,

Date when town (or city) began to sell gas and electricity,

3. Name and address of manager of municipal lighting:

Andrew F. Hadden

80 Commercial Street

Marblehead, MA 01945

Name and address of mayor or selectmen:

Jackie Belf-Becker

Abbot Hall

Marblehead, MA 01945

Harry C. Christensen Jr. Abbot Hall

Marblehead, MA 01945

Judith R. Jacobi Abbot Hall

Marblehead, MA 01945

Bret T. Murray

Abbot Hall

Marblehead, MA 01945 Marblehead, MA 01945

James E. Nye Abbot Hall Name and address of town (or city) treasurer:

Patricia Murray

Widger Road

Marblehead, MA 01945

Name and address of town (or city) clerk:

Robin A. Michaud

Abbot Hall

Marblehead, MA 01945

Names and addresses of members of municipal light board:

Michael A. Hull

81 Bayview Road

Marblehead, MA 01945

Walter E. Homan Michael A. Tumulty

31A Haley Road 108 Washington Street Marblehead, MA 01945

Joseph T. Kowalik Jr.

60 Seaview Avenue

Marblehead, MA 01945 Marblehead, MA 01945

Michael J. Maccario

64 Garfield Street

Marblehead, MA 01945

Total valuation of estates in town (or city) according to last State valuation (taxable)

\$5,808,259,597.00

Tax rate for all purposes during the year:

Residential

\$11.01

Open Space Commercial/Industrial/Personal Property

\$0.00 \$11.01

10. Amount of manager's salary:

\$198,279.58

11. Amount of manager's bond:

\$0.00

Amount of salary paid to members of municipal light board (each):

\$0.00

ELIBNISH SCHEDULE OF	ECTIMATED DEOLU	DED DY OFNEDAL LANG. OUR OTES	- 4
FOR GAS AND ELECTRIC	LOTIMATES REQUI	RED BY GENERAL LAWS, CHAPTER R THE FISCAL YEAR, ENDING DECE	T 164, SECTION 57
, o, o, o, a, o	DEIOIN I EARTO I O	THE HOCAL TEAR, ENDING DECE	Amount
INCOME FROM PRIV	ATE CONSUMERS:		Amount
1 From sales of gas	,,,,,,,, .		
2 From sales of electrici	tv		15,871,100.00
3	7	TOTAL	
4		·	10,071,100.00
5 EXPENSES	÷	•	
6 For operation, mainter	nance and repairs		14,630,300.00
7 For interest on bonds,		•	14,030,300.00
8 For depreciation fund	(3% on	30,390,191.24 as per page 8 B)	911,705.74
9 For sinking fund requir		, ,	011,700.74
10 For note payments			
11 For bond payments			
12 For loss in preceding y	ear		
13		TOTAL	15,542,005.74
14			
15 COST :	•		
16 Of gas to be used for n			
17 Of gas to be used for s			
18 Of electricity to be used		ngs	940,175.63
19 Of electricity to be used			129,914.00
20 Total of above items to	be included in the tax	x levy	1,070,089.63
21	tanah at at at a		
22 New construction to be 23 Total amounts to be i			
23 Total amounts to be i	CUSTOMERS	У	1,070,089.63
Names of cities or towns in		Names of cities on towns in which the	-11
supplies GAS, with the num		Names of cities or towns in which the ELECTRICITY, with the number of cu	
meters in each.	bei of edatorners	meters in each.	stomers
	Number	THOOLEGE IT COOL.	Number
City or Town	of Customers'	City or Town	of Customers'
	Meters, Dec. 31	Oity of Tovall	Meters, Dec. 31
NONE		Marblehead	10,390
			10,000
	-	ĺ	
	•		·
·			
į			
	,		
TATA	,	_	
TOTAL	0	TOTAL	10,390

	API	PROP	RIATION	IS SINCE	BEGINNING	OF YEAR
--	-----	------	---------	----------	-----------	---------

(Include also all items charged direct to tax levy, even where no appropriation is made or required.)

FOR CONSTRUCTION OR PURCHASE OF PLANT

*At

meeting

, to be paid from **

*At

meeting

, to be paid from **

TOTAL 0.00

FOR THE ESTIMATED COST OF THE GAS OR ELECTRICITY

TO BE USED BY THE CITY OR TOWN FOR:

1. Street lights

135,778.75

2. Municipal buildings

854,705.12

3.

TOTAL 990,483,87

* Date of meeting and whether regular or special

** Here insert bonds, notes or tax levy

CHANGES IN THE PROPERTY

 Describe briefly all the important physical changes in the property during the last fiscal period including additions, alterations or improvements to the works or physical property retired.

In electric property:

- * Replaced poles and reconstructed primary construction on Evans Road.
- * Replaced poles and installed spacer cable on Bayview Road.
- * Removed and scrapped 1948 Diesel Generator Unit from Commercial Street.
- * Retrofitted Wilkins Generation Station with catalitic converters and new exhaust system.

In gas property:

Not applicable

Sonds Clissued on Account of Gas or Electric Lighting.) When Authorized*
--

The bonds and notes outstanding at end of year should agree with the Balance Sheet.

When bond and notes are repaid report the first three columns only

^{*} Date of meeting and whether regular or special
** List original issues of bonds and notes including those that have been repaid

		Town Notes (Issued on Account of Gas or Electric Lighting.)	Town Notes	es tric Lighting.)			
14 fts		Amount of	Period of Payments	nents		Interest	Amount Outstanding
vynen Authorized	Date of Issue	Original Issue **	Amounts	When Payable	Rate	Rate When Payable	at End of Year
	06/01/1895	10,000.00	·.				
	12/01/1896	4,000.00					
	01/01/1902	9,500.00					
March 1927	01/02/1928	15,000.00					week.
March 1937	08/01/1938	38,000.00				***	
					···		
	TOTAL	76,500.00				TOTAL	NONE

The bonds and notes outstanding at end of year should agree with the Balance Sheet.

When bond and notes are repaid report the first three columns only

* Date of meeting and whether regular or special ** List original issues of bonds and notes including those that have been repaid

		1	<u>0</u>	6	<u> </u>
mber 31, 2016	hin utility plant umn (f).	Balance End of Year (g)	2,327,602.99	2,327,602.99	0.00
Year Ended December 31, 2016	effect of such amounts. Reclassifications or transfers within utility plant accounts should be shown in column (f).	Transfers (f)		00.0	0.00
•	effect of such amounts. 4. Reclassifications or tra accounts should be sho	Adjustments (e)	5	00.00	0.00
	_	Retirements (d)		0.00	00.00
	LANT - ELECTRIC h items should be i appropriate. of plant accounts ses to indicate the	Additions (c)		0.00	00.00
wn of Marblehead	TOTAL COST OF PLANT - ELECTRIC preceding year. Such items should be included in column (c) or (d) as appropriate. 3. Credit adjustments of plant accounts should be enclosed in parentheses to indicate the negative	Balance Beginning of Year (b)	2,327,602.99	2,327,602.99	00.00
e 8 Annual Report of the Town of Marblehead	 Report below the cost of utility plant in service according to prescribed accounts Do not include as adjustments, corrections of additions and retirements for the current or the 		In I ANGIBLE PLANT Misc Intangible Plant - Trans	בייא ים אייידיין מיים ביי	2. PRODUCTION PLANT A. Steam Production 310 Land and Land Rights 311 Structures and Improvements 312 Boiler Plant Equipment 313 Engines and Engine Driven Generators 314 Turbogenerator Units 315 Accessory Electric Equipment 316 Miscellaneous Power Plant Equipment Total Steam Production Plant B. Nuclear Production Plant 320 Land and Land Rights 321 Structures and Improvements 322 Reactor Plant Equipment 323 Turbogenerator Units 324 Accessory Electric Equipment 325 Miscellaneous Power Plant Equipment 326 Miscellaneous Power Plant Equipment Total Nuclear Production Plant
Page 8	1. Reaccor	Line No.	~ 0 m	4 4	222220100011111111111111111111111111111

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Annual Report of the Town of Marblehead

TOTAL COST OF PLANT - ELECTRIC (Continued)

Year Ended December 31, 2016

1 100		Balance					Balance
Š Š	Account (a)	Beginning of Year (b)	Additions (c)	Retirements (d)	Adjustments (e)	Transfers	End of Year
_	C. Hydraulic Production Plant						(8)
2	330 Land and Land Rights				•	***	
က							
4	332 Reservoirs, Dams and Waterways						-
Ω.	333 Water Wheels, Turbines and Generators						
ဖ	334						
^							
<u>α</u>							
O .	Total Hydraulic Production Plant	00.0	00.00	00.0	00.0	000	00 0
10	D. Other Production Plant						8
#	340 Land and Land Rights	10,696.49	-				10 696 49
12	341 Structures and Improvements	312,769.33				,	312 769 33
13	342 Fuel Holders, Producers and Accessories	62,164.53				•	62 164 53
4	343 Prime Movers	350,965.00	403,010,00	-			753 975 00
15	344 Generators	762,947.10		94.378.00			668 569 10
16	345 Accessory Electric Equipment		•				
17	346 Miscellaneous Power Plant Equipment						
18	Total Other Production Plant	1,499,542.45	403,010.00	94,378.00	0.00	0.00	1.808.174.45
19	Total Production Plant	1,499,542.45	403,010.00	94,378.00	00:0	0.00	1.808.174.45
20	3. Transmission Plant						
7	350 Land and Land Rights	40,900.00					40.900.00
22		1,851.50					1.851.50
23		42,849.54					42.849.54
24	353 Station Equipment	35,999.02					35 999 02
25	354	240.78				"	240.78
26		55,174.33					55.174.33
27	356 Overhead Conductors and Devices	425,570.20					425 570 20
28		706,873.13					706.873.13
29	358 Underground Conductors and Devices	290,170.78		-		•	290,170,78
8	359 Roads and Trails						
3	Total Transmission Plant	1,599,629.28	0.00	0.00	00:0	00.00	1,599,629.28

		LUTAL COST OF DI ANT (Conclude	COST OF DI ANT (Concluded)				0101110
Line		- Concled	nanicina) i ki				
Š	Account	Beginning of Veer	0 0 0 19 10 TV	1,00		,	Balance
	(a)	(b)	Sugarons (C)	(b)	Adjustments (e)	i ransters	End of Year
_	4. DISTRIBUTION PLANT			1	(2)	/2)	(8)
7	360	200.00					500 00
က	361	1,040,971.30					1 040 971 30
4	362 Station Equipment	5,115,271.25	26,117.44	•			5 141 388 60
3	363 Storage Battery Equipment	44,977.99					44 977 99
ဖ	364 Poles Towers and Fixtures	2,169,537.42	91.343.26	25.556.65			50 705 35C C
^	365 Overhead Conductors and Devices	3,379,014.98	157,218.41	11,582.39	•		3 524 651 00
∞	366 Underground Conduit	2,386,603.19	1.089.96				2 387 602 15
6	367 Underground Conductors and Devices	2,389,884.60	31,110,38		-		2,307,093,13
10	368 Line Transformers	1,531,205.65	46.321.79	18 507 72			1 550 040 72
7	369 Services	638.427.89	23,840.66				27.010.000
12	370 Meters	2.794.462.28	88,193,28	1 119 31			002,200.00
13	371 Installations on Customer's Premises	78 203 70		-		-	27.055,100,2
14	372 Leased Prop on Customer's Premises		•				70,203.70
15	373 Streetlight and Signal Systems	477,374.27	17,545.32	5.896.54			480 003 05
9	Total Distribution Plant	22,046,434.52	482,780.50	62,662,61	000	000	22 ARR 5K2 44
17	5. GENERAL PLANT				20.00	20.0	42,400,002,41
18							
19	390	592,959.56					502 050 58
20	391 Office Furniture and Equipment	595,812.41					505,838.30
21	392 Transportation Equipment	882,417.00	25,190.00	19.853.00			887 754 00
22	393 Stores Equipment						00.40
23							
24	395 Laboratory Equipment		•				
22	396 Power Operated Equipment						
56	397 Communication Equipment	165,654.13					185 BEA 13
27	398 Miscellaneous Equipment	-					00,004,10
28	399 Other Tangible Property						
29	Total General Plant	2,236,843.10	25,190.00	19.853.00	00 0	000	2 242 480 40
စ္က	Total Electric Plant in Service		910,980.50	176.893.61	000	800	30 444 430 23
3					Total Cost of Electric Diant		20,444,139.43
33				ess Cost of Land	Less Cost of Land Land Rights Rights of Way	fs of Wav	53 047 00
34				Fotal Cost upon wh	Total Cost upon which Depreciation is based	based	30 390 191 24
Thea	The above figures should show the original cost of the existing property. In case any part of the property is sold or retired, the cost of such property.	sting property. In case a	nv part of the pro	poerty is sold or ref	ired the cost of su	ch property	171.01(00)
shoul	should be deducted from the cost of the plant. The net cost of the property, less the land value, should be taken as a basis for figuring depreciation.	it of the property, less the	e fand value, sho	uld be taken as a l	basis for figuring de	en property epreciation.	

PAGE 9 IS A NOTE ONLY PAGE

Note

1 Profit Rate 2016:

4.5746%

Net Profit (page 12 Col E Line 33) divided by Total Cost of Electric Plant in Service (page 8B Col J Line 106) 1,392,696.99

Estimated Maximum Profit Allowed for 201'

2,435,531.14

Total Cost of Electric Plant in Service (page 8 Col J Line 106) X Eight Per Cent

Depreciation for 2017 at 3 Per Cent:

911,705.74

Total Cost of Electric Plant in Service Less Cost of Land and Land Rights-Of -Way (page 8 Col J Line 109) X Three Per Cent

Quarterly Transfer for Depreciation

227,926.44

COMPARATIVE BALANCE SHEET Assets and Other Debits

			Balance	Balance	Increase
Line		Title of Account	Beginning	End	or
No.		(a)	of Year	of Year	(Decrease)
			(b)	(c)	(d)
1		UTILITY PLANT			
. 2	101	Utility Plant - Electric (P. 17)	12,402,841.15	12,285,583.96	(117,257.19)
3	101	Utility Plant - Gas (P. 20)			
4					-
5		Total Utility Plant	12,402,841.15	12,285,583.96	(117,257.19)
6 7					
(1		
8				}	
9			ļ		
10		FIND ACCOUNTS			
11	405	FUND ACCOUNTS			
12		Sinking Funds		_ :	
13	120	Depreciation Fund (P. 14)	6,751,652.52	6,949,454.36	197,801.84
14	128	Other Special Funds	2,489,909.02	2,496,930.33	7,021.31
15 16		Total Funds	9,241,561.54	9,446,384.69	204,823.15
	404	CURRENT AND ACCRUED ASSETS			
17		Cash (P. 14)	4,590,557.65	4,427,914.89	(162,642.76)
18		Special Deposits	180,727.00	168,661.00	(12,066.00)
19 20		Working Funds	500.00	500.00	0.00
21	1	Notes Receivable	0.040.004.00		
22		Customer Accounts Receivable	2,619,291.82	2,563,339.76	(55,952.06)
23		Other Accounts Receivable	0.000.04	50 404 54	
24		Receivables from Municipality	6,289.21	56,494.51	50,205.30
25		Materials and Supplies (P. 14)	94,189.34	74,693.41	(19,495.93)
26		Interest & Dividend Receivable Prepayments	0.00	0.00	0.00
27	1	Miscellaneous Current Assets	1,410,609.15	1,286,617.99	(123,991.16)
28	177	Total Current and Accrued Assets	9 000 464 47	0.570.004.50	(000 040 04)
29		DEFERRED DEBITS	8,902,164.17	8,578,221.56	(323,942.61)
30		Unamortized Debt Discount	·		
31	1	Extraordinary Property Losses			
32		Other Deferred Debits	400 444 00	400 444 00	
33	.55	Total Deferred Debits	409,444.00 409,444.00	409,444.00	
34		Total Deletted Debits	4 05, 444 .00	409,444.00	0.00
35	ŀ	Total Assets and Other Debits	30,956,010.86	30 710 624 24	(226.270.05)
		1 Stat Assets and Other Debits	30,330,010.06	30,719,634.21	(236,376.65)

COMPARATIVE BALANCE SHEET Liabilities and Other Credits Balance Balance Increase Line Title of Account Beginning End OF No. (a) of Year of Year (Decrease) (b) (c) (d) **APPROPRIATIONS** 2 201 Appropriations for Construction NONE NONE NONE 3 **SURPLUS** 4 205 Sinking Fund Reserves 5 206 Loans Repayment 6 207 Appropriations for Construction Repayments 7 208 Unappropriated Earned Surplus (P. 12) 21,053,968.16 22,125,523.42 1,071,555.26 8 **Total Surplus** 21,053,968.16 22,125,523.42 1,071,555.26 9 LONG TERM DEBT 10 221 Bonds (P. 6) 11 231 Notes Payable (P. 7) 12 Total Bonds and Notes NONE NONE NONE 13 **CURRENT AND ACCRUED LIABILITIES** 14 232 Accounts Payable 6,598,043.14 6,546,059.41 (51,983.73)15 234 Payables to Municipality (Water) 16 235 Customers' Deposits 178,627.00 164,094.00 (14,533.00)17 236 Taxes Accrued 18 237 Interest Accrued 19 242 Miscellaneous Current and Accrued Liabilities 20 Total Current and Accrued Liabilities 6,776,670.14 6,710,153.41 (66,516.73) 21 **DEFERRED CREDITS** 22 251 Unamortized Premium on Debt 23 252 Customer Advances for Construction 24 253 Other Deferred Credits 25 **Total Deferred Credits** NONE NONE NONE 26 **RESERVES** 27 260 Reserves for Uncollectible Accounts 415,454,14 322,961.76 (92,492.38)28 261 Property Insurance Reserve 29 262 Injuries and Damages Reserves 30 263 Pensions and Benefits Reserves 89,918.42 100,301.66 10,383.24 264 Reserve for Rate Stabilization 900,000.00 900,000.00 0.00 31 265 Miscellaneous Operating Reserves 1,720,000.00 560,693.96 (1,159,306.04)32 Total Reserves 3,125,372.56 1,883,957.38 (1,241,415.18) 33 **CONTRIBUTIONS IN AID OF** CONSTRUCTION 34 271 Contributions in Aid of Construction NONE NONE NONE 35 Total Liabilities and Other Credits 30,956,010.86 30,719,634,21 (236,376.65)

State below if any earning of the municipal lighting plant have been used for any purpose other than discharging indebtedness of the plant, the purpose for which used, and the amount thereof.

	STATEMENT OF INCOME FOR THE YEAR		
Line	Account	Current Year	Increase or (Decrease) from
No.	(a)	(b)	Preceding Year
		_	(c)
1 1	OPERATING INCOME		
2	400 Operating Revenues (P. 37 and 43)	16,347,200.67	(417,044.74)
3	Operating Expenses:	40 405 500 00	(4.400.540.07)
5	401 Operation Expense (p. 42 and 47) 402 Maintenance Expense	12,465,596.63	(1,128,512.07)
6	403 Depreciation Expense	1,010,638.44	(19,547.75)
7	407 Amortization of Property Losses	1,482,805.22	13,880.26
8	To the dealer of the porty booded		·
9	408 Taxes (P. 49)		
10	Total Operating Expenses	14,959,040.29	(1,134,179.56)
11	Operating Income	1,388,160.38	717,134.82
12	414 Other Utility Operating Income (P. 50)		, i
13			<i>1</i>
14	Total Operating Income	1,388,160.38	717,134.82
15	OTHER INCOME		
16	415 Income from Merchandising, Jobbing, and Contract Work (P. 51)		<u>-</u>
17	419 Interest Income	24,785.22	2,162.34
18	421 Miscellaneous Nonoperating Income (P. 21)		
19	Total Other Income	24,785.22	2,162.34
20	Total Income	1,412,945.60	719,297.16
21	MISCELLANEOUS INCOME DEDUCTIONS		
22	425 Miscellaneous Amortization	(222121)	
23 24	426 Other Income Deductions Total Income Deductions	(20,248.61)	
25	Income Before Interest Charges	NONE 1 202 CCC CC	NONE
26	INTEREST CHARGES	1,392,696.99	699,048.55
27	427 Interest on Bonds and Notes		
28	428 Amortization of Debt Discount and Expense		
29	429 Amortization of Premium on Debt - Credit		
30	431 Other Interest Expense		
31	432 Interest: Charged to Construction - Credit		
32	Total Interest Charges	NONE	NONE
33	NET INCOME	1,392,696.99	699,048.55
	EARNED SURPLUS	·	,
Line	Account	Debits	Credits
No.	(a)	(b)	(c)
34	208 Unappropriated Earned Surplus (at beginning of period)	·	21,053,968.16
35			
36	400 D		
37	433 Balance Transferred from Income		1,392,696.99
38 39	434 Miscellaneous Credits to Surplus (P. 21)		13,824.88
40	435 Miscellaneous Debits to Surplus (P. 21)	204 000 04	
41	436 Appropriations of Surplus (P. 21) 437 Surplus Applied to Depreciation	334,966.61	
42	208 Unappropriated Earned Surplus (at end of period)	22 425 522 40	·
43	200 Oriappropriated Earned Surpius (at end of period)	22,125,523.42	·
44	TOTALS	22,460,490.03	22 460 400 02
-1.4	IOIALO	22,400,480.03	22,460,490.03

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	Town of Marylahon	
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(a) 1. INTANGIBLE PLANT 303 Misc Intangible Plant Transmission 2. PRODUCTION PLANT A. Steam Production 310 Land and Land Rights 311 Structures and Improvements 312 Boiler Plant Equipment 313 Engines and Engine Driven Generators 314 Turbogenerator Units 315 Accessory Electric Equipment 316 Miscellaneous Power Plant Equipment Total Steam Production Plant B. Nuclear Production Plant B. Nuclear Production Plant 320 Land and Land Rights 321 Structures and Improvements 322 Reactor Plant Equipment 323 Turbogenerator Units	Account (a) 1. INTANGIBLE PLANT 303 Misc Intangible Plant Transmission 2. PRODUCTION PLANT A. Steam Production 310 Land and Land Rights 311 Structures and Improvements 312 Boiler Plant Equipment 313 Engines and Engine Driven Generators 314 Turbogenerator Units 315 Accessory Electric Equipment Total Steam Production Plant B. Nuclear Production Plant B. Nuclear Production Plant 320 Land and Land Rights 321 Structures and Improvements 322 Reactor Plant Equipment 323 Turbogenerator Units	m	preceding year. Such items should be included in column (c). Credit adjustments of plant accounts should be enclosed in parentheses to indicate the negative Balance Beginning of Year (b) (c) (d) (d) (d) (334,282.19 (0.00 0.00 0.00 0.00	nts should be the negative Depreciation (d) 116,380.15 116,380.15 0.00	4. Reclassifications or transcounts should be sho accounts should be sho transfer (e) (b) (c) (c) (d) (d) (d) (e) (e) (f) (f) (f) (f) (f) (f	Reclassifications or transfers within utility accounts should be shown in column (f). Adjustments Balan Transfers End of (f) (g) (g) (g) (g) (g) (h) (g) (h) (h) (h) (h) (h) (h) (h) (h) (h) (h	Reclassifications or transfers within utility plant accounts should be shown in column (f). Adjustments Balance her Credits Transfers End of Year (f) (g) 0.00 0.00 217,902.04 0.00 0.00 0.00
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Page 16 Annual Report of the Town of Marblehead

Page 16 Annual Report of	Annual Report of the Town of Marblehead Account	UTILITY PLANT Balance Beginning of Year	- ELECTRIC (Continued) Additions Depreciation	(Continued)	Other Credits	Year Ended December 31, 2016 Adjustments Balance Transfers End of Year	ember 31, 2016 Balance End of Year
(a)		(p)	(0)	(d)	(e)	(f)	Ella ol Tear (g)
						-	
332 Reservoirs, Dams and Waterways 333 Water Wheels, Turbines and Generators							
334 Accessory Electric Equipment							
335 Roads, Railroads and Bridges							•
Total Hydraulic Production Plant		00.0	00'0	00.0	00.00	00.0	0.00
D. Other Production Plant 340 Land and Land Rights	,	10 696 49		·			40.000.40
		0.00					10,096.49
		0.00					0.00
343 Prime Movers 344 Generators		56,987.29	403,010.00	21,021.86			438,975.43
		8	9				0.00
346 Miscellaneous Power Plant Equipment						•	
Total Other Production Plant		67,683.78	403,010.00	21,021.86	00.0	0.00	449,671.92
Total Production Plant		67,683.78	403,010.00	21,021.86	00.0	00:00	449,671.92
		6					
350 Land and Land Rights 351 Clearing Land and Rights of Wav		1.851.50					40,900.00
352 Structures and Improvements		808.61		808.61			0.100,
		00.0		•			0.00
•		5.99		5.99			•
		00:0					0.00
		106,641.20		21,278.51		•	85,362.69
		145,407.24		35,343.66			110,063.58
358 Underground Conductors and Devices		70,556.89		14,508.54		•	56,048.35
		366,171,43	000	71 945 31	000	00 0	204 226 42
		1	7 - 1 - 1	1 - 2 - 2 (, ,	->>>	- >>:>	407,440.14

Page 17 Annual Report of the Town of Marblehead

Year Ended December 31, 2016

		UTILITY PLANT	ELECTRIC (Continued)	ontinued)			
Line		Balance			Other	Adjustments	Balance
ġ	Account	Beginning of Year	Additions	Depreciation	Credits	Transfers	End of Year
	(a)	(q)	(c)	(D)	(e)	€	(0)
_	4. DISTRIBUTION PLANT				,,,		(6)
7		200.00					500 00
က		583,834.33		52,048.57			531 785 76
4	362 Station Equipment	2,188,000.00	26,117.44	255,763.56			1 958 353 88
ιΩ		13,341.61		2,248,90			11 092 71
ဖ	364 Poles Towers and Fixtures	429,653.59	91,343.26	129,949,43			391 047 42
_	365 Overhead Conductors and Devices	2,264,096.28	157,218.41	202,393.87			2 2 0 0 0 0 0 C C
ထ	366 Underground Conduit	954,254.71	1,089.96	142,951.09			812,393,58
တ	367 Underground Conductors and Devices	850,403.84	31,110.38	119,494,23			762 019 99
9	368 Line Transformers	862,839.70	46,321.79	76,560,28	-		832 601 21
	369 Services	342,739.17	23,840.66	31,921,39			334 658 44
7	370 Meters	2,701,797.43	88,193.28	139,723.11			2 650 267 60
5	371 Installations on Customer's Premises	5,060.63		3,910.19			1 150 44
4	372 Leased Prop on Customer's Premises	·				•	1.001
15	373 Streetlight and Signal Systems	97,345.72	17,545,32	23.868.71			91 022 33
9	Total Distribution Plant	11,293,867.01	482,780.50	1,180,833,33	00.0	00 0	10 595 814 18
17	5. GENERAL PLANT						2000
18							
9	390 Structures and Improvements	00:00			-		000
20	391 Office Furniture and Equipment	0.00					86
21	392 Transportation Equipment	175,642.66	25,190.00	88,241.69			112 590 97
22	393 Stores Equipment		•	•			2000
23	394 Tools, Shop and Garage Equipment						
24	395 Laboratory Equipment						
22	396 Power Operated Equipment						
56	397 Communication Equipment	4,382.88		4.382.88		•	00 0
27	398 Miscellaneous Equipment						3
78	399 Other Tangible Property						
58	Total General Plant	180,025.54	25,190.00	92,624.57	0.00	00.0	112 590 97
စ္က	Total Electric Plant in Service	12,242,029.95	910,980.50	1,482,805.22	00.0	0.00	11,670,205,23
<u>რ</u>	104 Utility Plant Leased to Others			-			
32	105 Property Held for Future Use		•				
8 8	107 Construction Work in Progress	160,811.20				454,567.53	615,378.73
22	lotal Utility Plant Electric	12,402,841.15	910,980.50	1,482,805.22	0.00	454,567.53	12,285,583.96

Page 18	Next page is 21	Annual Report of the Town of Marblehead	Town of Marblehea	þe	Year Ended December 31, 2016	ember 31, 2016
<u>- </u>		PRODUCTION FUEL AND OIL STOCKS (Included in Account 151)	AND OIL STOCK	S (Included in Accor	unt 151)	
-			(Except Nuclear Materials)	terials)		
,			tions of 2,000 lbs.,	or concerning produgal, or Mcf., which	report below the miorimation called for concerning production fuel and oil stocks. Show quantities in tons of 2,000 lbs., gal., or Mcf., whichever unit of quantity is applicable.	cks. s applicable.
		3. Each kind of coal 4. Show gas and ele	Each kind of coal or oil shouid be shown separately. Show gas and electric fuels separately by specific use.	own separately. Iy by specific use.		
				Kinds of Fuel and Oil	liOp	
,		Total				
Line	Item	Cost	Quantity	Cost	Quantity	Cost
ON T	(a)	(a)	(0)	(d)	(e)	(j)
(On nand beginning of Year	46,638.17	18,865.00			
2	Received During Year	5,600.30	3,302.70			
m	TOTAL	52,238.47	22,167.70			
4	Used During Year (Note A)					
ഹ	For Heating	21,511.74	8,319.70		-	
တ ၊	For Generation	9,628.92	3,724.00			
~ (٠	
∞ (
D						
2.5	7					
- 2	TOTAL DISPOSED OF	31 140 66	12 043 70			
13	BALANCE END OF YEAR	21.097.81	10 124 00			
				Kinds of Firel and Oil - continued	d Oil - continued	
				5		
Line	Item	<u> </u>	Quantity	Cost	Ouantity	Cost
Ö.	(b)		Ξ	€		ğ &
4	On Hand Beginning of Year				*	, ,
15	Received During Year					
9	TOTAL					
17	Used During Year (Note A)	<u>!</u>				
18	,					
9						
50			-			
21		•				
22						
23						
24	Sold or Transferred					
25	TOTAL DISPOSED OF	,				
26	BALANCE END OF YEAR					
NO.		-				

Note A -- Indicate specific purpose for which used, e.g., Boiler Oil, Make Oil, Generator Fuel, etc.

Annua	al Report of the Town of Marblehead Year Ended December 31, 2016	Page 21
	MISCELLANEOUS NONOPERATING INCOME (Account 421)	
Line	Item	Amount
No	(a)	(b)
1		
2		•
3		•
1 .1		
4		
5	·	
6	TOTAL	0.00
	OTHER INCOME DEDUCTIONS (Account 426)	· · · · · · · · · · · · · · · · · · ·
Line	Item	Amount
No.	(a)	(b)
7		·
8		,
9		•
10		
11		
12		
13		
14	TOTAL	0.00
	MISCELLANEOUS CREDITS TO SURPLUS (Account 434)	
Line	Item	Amount
No.	(a)	(b)
15	(α)	
	Container Assessmt Cattlement received from user anded December 2015	12 024 00
	Customer Account Settlement received from year ended December 2015	13,824.88
17		
18	·	
19		
20	·	and the second s
21		
22		
23	TOTAL	13,824.88
	MISCELLANEOUS DEBITS TO SURPLUS (Account 435)	10,024.00
		A
Line	1,121/1	Amount
No.	(a)	(b)
24		
25		0.00
26		
27	į.	
28		
29		
30		
31		
	No Albanda a a a	0.00
32	TOTAL	0.00
ļ	APPROPRIATIONS OF SURPLUS (Account 436)	
Line	Item	Amount
No.	(a)	(b)
33	March 2016 Commission voted Net Surplus Revenue - Town of Marblehead	330,000.00
	March 2016 Commission voted In-Lieu of Tax Payment - Town of Salem	4,966.61
35	The second secon	-,
36		
37		
38		
39		
40	TOTAL	334,966.61

MUNICIPAL REVENUES (Account 482,444)

(K.W.H. Soid under the provision of Chapter 269, Acts of 1927)

Line	Acct.	Gas Schedule		Cubic Feet	Revenue Received	Average Revenue Per MCF (cents)
No.	No.	(a)		(b)	(c)	(0.0000) (d)
1 2 3		Not Applicable		·		
4			TOTALS			
		Electric Schedule (a)		K.W.H. (b)	Revenue Received (c)	Average Revenue Per KWH (cents) (0.0000) (d)
5 6 7	444	Municipal		5,852,767	854,705.12	0.1460
8 9 10 11	·	Street Lighting		915,255	135,778.75	0.1484
12 13 14 15 16	:		TOTALS	6,768,022	990,483.87	0.1463
17 18			TOTALS	0	0.00	
19			TOTALS	6,768,022	990,483.87	0.1463

PURCHASED POWER (Account 555)

Line No.	Names of Utilities from Which Electric Energy is Purchased (a)	Where and at What Voltage Received (b)	K.W.H (c)	Amount (d)	Cost per KWH (cents) (0.0000) (e)
20	See Pages 54 & 55				
21				·	
22					
23					
24				•	
25		:			
26					
27				,	
28					
29		TOTALS	0	0.00	

SALES FOR RESALE (Account 447)

Line No.	Names of Utilities to Which Electric Energy is sold (a)	Where and at What Voltage Delivered (b)	K.W.H (c)	Amount (d)	Revenue per KWH (cents) (0.0000) (e)
30	See Pages 52 & 53				
31			,		·
32	•				
33					
34					
35	-				
36					
37					
38					
39		TOTALS	0	0.00	

Present below the amount of operating revenue for the mount of coreany for the case) Present below the amount of operating revenue for the amount of operating revenue for the amount of coreany for the case) (and	Page 37	37	Annual Report of the	Annual Report of the Town of Marblehead	þ	Year Ended December 31, 2016	. 31, 2016	
A contractive state and order to limit purposes, no customers shall be counted to provide the counted that counted the counted the counted the counted the counted that counted the counted the counted that counted that counted the counted that counted the counted that counted that counted the counted that counted the counted that counted that counted the counted that counted that counted that counted that counted the counted that coun			ELECTRIC OPER	ATING REVENUES (Account 400)			
Continuer or cannot be average in the case of each of month. The case of each of month if the case of each of month. If the case of each of month. If the case of each of ea	1. Repor	t below the amount of operating revenue for the	meter readings are add	ded for billing purposes, o	ne customer shall	4. Unmetered sales sho	ould be included below	v. The details of such
Transcript Control of the Contro	year for 6	each prescribed account and the amount of increase or	be counted for each gr	oup of meters so added.	The average number	sales should be given in	n a footnote.	0.00
Triculate a construction of production includes construct more than once because severe excellentation of products construct more than once because of special services as customers counted more than once because of special services such as water therefing the "Linguistication is the construction of perastric such as water referring the "Linguistication is the construction of perastric statements included in the classification is not constructed in the classification in the classification is not constructed in the classification in the classification is not classification in the classification in the classification is not classification in the classification in the classification is not classification in the classification in the classification is not classification in the classification in the classification is not classification in the classification in the classification is not classification in the classification in the classification is not classification in the classification in the classification in the classification is not classification in the classification in the classification is not classification in the classif		cover use preceding year.	or customers means u	re average of the 12 ligure	ss at me close of each	5. Classification on Cor	mmercial and Industria	al Sales, Account 442,
Control of the cont	7. IF INCL	eases and decreases are not derived mom previously	monin. If the custome	r count in the residential s	ervice classification	Large (or Industrial) may	y be according to the t	basis of classification
Septimest Sept	геропеа	ingures, explain any inconsistencies.	includes customers co	unted more than once be	cause or special	regularly used by the re	spondent if such basis	of classification is not
Operating Revenues Kilowatt hours Sold Average Number of Lustomers per Month Amount for Vear Increase or Amount for Vear Increase or Amount for Vear (Decrease) from Vear Preceding Year	3. Numic	ier of customers should be reported on the basis of this number of late rafe accounts except where separate	services, such as wate of such diplicate customate	or heating, etc., indicate in priest inclined in the class	a footnote the number sification	greater than 1000 KW.	See Account 442 of the Seis of Classification	ne Uniform System
Account			Operating Reve	unes	Kilowatt-hours Sold		Average Numb	er of
## Account Acc							Customers per	Month
SALES OF ELECTRICITY				Increase or		Increase or		increase or
Account Vear Preceding Year (a) 449 Residential Sales 440 Residential Sales 450 Residential Sales 461 Augusta Formerdal and Industrial Sales 462 Commercial and Industrial Sales 463 Commercial and Industrial Sales 464 Municipal Sales 464 Municipal Sales 465 Residential Sales 465 Residential Sales 465 Residential Sales 465 Residential Sales 466 Residential Sales 467 Residential Sales 467 Residential Sales 468 Residential Sales 468 Residential Sales 469 Commercial and Industrial Sales 469 Commercial and Industrial Sales 460 Residential Residenti			Amount for	(Decrease) from	Amount for	(Decrease) from	Number for	(Decrease) from
SALES OF ELECTRICITY Up Up <th>Line</th> <th>Account</th> <th>Year</th> <th>Preceding Year</th> <th>Year</th> <th>Preceding Year</th> <th>Year</th> <th>Preceding Year</th>	Line	Account	Year	Preceding Year	Year	Preceding Year	Year	Preceding Year
449 Miscilaneous Electric Sales 440 Mesidential Sales 441 Electric Sales 442 Commercial and Industrial Sales 442 Commercial and Industrial Sales 442 Commercial B Sales 442 Commercial B Sales 444 Commercial B Sales 444 Commercial B Sales 445 Commercial B Sales 444 Municipal Sales 445 Municipal Sales 444 Municipal Sales 445 Municipal Sales 446 Municipal Sales 447 Municipal Sales 447 Municipal Sales 447 Municipal Sales 447 Municipal Sales 448 Municipal Sales 448 Municipal Sales 449 Muster 441 Municipal Sales 444 Municipal Sales 445 Municipal Sales 447 Municipal Sales 446 Municipal Sales 447 Municipal Sales 447 Municipal Sales 447 Municipal Sales 448 Municipal Sales 449 Muster 449 Muster 449 Municipal Sales 449 Muster 449 Municipal Sales 440 Municipal Sales 440 Municipal Sales 441 Municipal Sales 444 Municipal Sales 445 Municipal Sales 445 Municipal Sales 447 Municipal Sales 447 Municipal Sales 447 Municipal Sales 447 Municipal Sales 448 Municipal Sales 449 Municipal Sales 440 Municipal Sales 44	2	SALES OF ELECTRICITY	(0)	2)	(n)	(ع)	M	(B)
### Wiscelland Reals 1,527,940,73	-		6	0	•		-	
Accommercial scales	C		0.00	0.00	001 040 440		1	(7.7)
12,290.67 12,290.87 12,290.35 12,2	V		11,027,940.73	(59,202,90)	71,046,739	_	8,774	(FL)
42 Commercial and Indicates and Indicates and Valuation and Indicates and Water and Undersormers and Indicates and Water and Water Powers 1,592,688.98 (144,531.59) 9,254,516 (751,078) 1,222 4 Municipal Sales Large Commercial S Sales 2,097,431.40 (57,290.04) 14,675,899 (291,968) 62 4 Municipal Sales B64,706.12 3,093.22 3,093.22 143,893 104 4 Municipal Sales B64,706.12 3,093.22 3,093.22 143,893 104 Hot Water 36,783.92 (3,099.32) 2,208 16,840 104 Fort B Sales to Ultimate Consumers 16,287,431.40 (430,975.09) 102,854,662 (2,489,962) 10,917 (7 A Sales to Resale 16,287,431.40 (430,975.09) 102,854,662 (2,439,962) 10,917 (7 A Sales to Resale 16,287,431.40 (430,975.09) 102,854,662 (2,439,962) 10,917 (7 A Sales to Resale 16,287,431.40 (430,975.09) 102,854,662 (2,439,962) 10,917 (7 455 Rent from Electric Property 59,769.27			12,290.67	(2,794.75)	102,810		<u></u>	0
Large Commercial C Sales 1,592,668 9	m	_						
Authorical Cales	4	Small Commercial B Sales	1,592,668.98	(144,531.59)	9,254,516	(751,078)	1,222	ග
444 Municipal Sales 684,705 12 (16.12) 34,091 23 (176.32) 5,882,787 (16.32) 10 (10.42) 10	Ω.	Large Commercial C Sales	2,097,431.40	(57,290.04)	14,675,899	(291,968)	62	€
Hot Water	ဖ		854,705.12	34,091.23	5,852,767	308,640	110	0
Hot Water 35,783.92 (3,039.32) 263,522 (18,943) 104 Street Lighting	7	Private Area Lights	30,432.26	(176.32)	143,946	286	633	*****
Off Peak Street Lighting Total Other Operating Revenues Off Peak Street Lighting Total Citer Operating Revenues Off Peak Street Lighting Total Citer Operating Revenues Total Electric Manual Electric Operating Revenues Total Electric Operating Revenues Total Electric Manual Electric Operating Revenues Total El	∞	Hot Water	35,783.92	(3,039.32)	263,522	(18,943)	104	6)
Street Lighting	6	Off Peak	399.57	46.14	2,208	319	_	0
Total Sales to Ultimate Consumers 16,287,431.40 (430,975.09) 102,854,662 (2,439,982) 10,916 (70,916 (70,916 (70,916 (70,916 (70,916 (70,916 (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,917) (70,918) </th <th>9</th> <th>Street Lighting</th> <th>135,778.75</th> <th>2,005.51</th> <th>915,255</th> <th></th> <th>-</th> <th>0</th>	9	Street Lighting	135,778.75	2,005.51	915,255		-	0
447 Sales for Resale 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 102,854,662 (2,439,982) 10,917 0 499-1 Provision For Revenues Ag-1 Provision For Revenues Sales of Water and Wat	7	Total Sales to Ultimate Consumers	16 287,431.40	(430,975.09)	102,854,662	(2)	10,916	(11)
Total Sales of Electricity 16,287,431.40 (430,975.09) 102,854,662 (2,439,982) 10,917 (439,977 OTHER OPERATING REVENUES OTHER OPERATING REVENUES (430,975.09) 102,854,662 (2,439,982) 10,917 (439,177) 499-1 Provision For Rate Stabilization 5 Revenues 59,769.27 13,930.35 * Includes revenues revenues from application of fuel clauses \$ 1,429,497. 1,429,497. 455 Interdepartmental Revenues 59,769.27 13,930.35 Total KWH to which applied 101,939,4 Total Other Operating Revenues 59,769.27 13,930.35 Total RWH to which applied 101,939,4	72	0)	00:00	0.00	0		1	0
OTHER OPERATING REVENUES 0.00 0.00 0.00 449-1 Provision For Rate Stabilization * Includes revenues from application of fuel clauses \$ 13,930.35 * Includes revenues from application of fuel clauses \$ 13,930.35 459 Test from Electric Property 455 Interdepartmental Rents 456 Other Electric Revenues 59,769.27 13,930.35 Total Other Operating Revenues 16,347,200.67 7417,044.74)	<u>0</u>	Total Sales of Electricity	16,287,431.40	(430,975.09)	102,854,662	(2,439,982)	10,917	(11)
449-1 Provision For Rate Stabilization 0.00 0.00 * Includes revenues from 451 Miscellaneous Service Revenues from 59,769.27 13,930.35 * Includes revenues from application of fuel clauses \$ application of fuel clauses \$ 453 Sales of Water and Water Power 455 Interdepartmental Rents 455 Interdepartmental Rents 455 Other Electric Revenues Total Other Operating Revenues 16,347,200.67 Total Other Operating Revenue 13,930.35 Total Electric Operating Revenue	4	OTHER OPERATING REVENUES						
451 Miscellaneous Service Revenues 59,769.27 13,930.35 * Includes revenues from application of fuel clauses \$ to water Power 453 Sales of Water and Water Power 454 Rent from Electric Property 455 interdepartmental Rents 456 Other Electric Revenues Total Other Operating Revenues 76,7720.067 Total Other Operating Revenue 16,347,200.67 13,930.35 Total Electric Operating Revenue 16,347,200.67	15	_	00:00	00:00				
453 Sales of Water and Water Power 454 Rent from Electric Property 455 Interdepartmental Rents 456 Other Electric Revenues Total Other Operating Revenues Total Electric Operating Revenue 16,347,200.67 (417,044.74)	9	_	59,769.27	13,930.35		* Includes revenue:	s from	
454 Rent from Electric Property 456 Interdepartmental Rents Total KWH to which applied 456 Other Electric Revenues 59,769.27 13,930.35 Total Other Operating Revenue 16,347,200.67 (417,044.74)	17		•			application of fuel o	kauses \$	1,429,497.63
455 Interdepartmental Rents Total KWH to which applied 456 Other Electric Revenues 59,769.27 13,930.35 Total Other Operating Revenue 16,347,200.67 (417,044.74)	<u>&</u>			-				
456 Other Electric Revenues Total KWH to which applied Total Other Operating Revenues 59,769.27 13,930.35 Total Electric Operating Revenue 16,347,200.67 (417,044.74)	19							
Total Other Operating Revenues 59,769.27 Total Electric Operating Revenue 16,347,200.67	20					Total KWH to which	n applied	101,939,407
Total Other Operating Revenues 59,769.27 Total Electric Operating Revenue 16,347,200.67	21		-					
Total Other Operating Revenues 59,769.27 Total Electric Operating Revenue 16,347,200.67	22							
Total Other Operating Revenues 59,769.27 Total Electric Operating Revenue 16,347,200.67	23							
Total Electric Operating Revenues 59,769.27 Total Electric Operating Revenue 16,347,200.67	24						-	
Total Electric Operating Revenue 16,347,200.67	25	Total Other Operating Revenues	59,769.27	13,930.35				
	26	Total Electric Operating Revenue	16,347,200.67	(417,044.74)				

.

SALES OF ELECTRICITY TO ULTIMATE CONSUMERS

Report by account number the K.W.H. sold, the amount derived and the number of customers under each filed schedule

or contract. Municipal sales, contract sales and unbilled sales may be reported separately in total.

Line No.	Account No.	Schedule (a)	K.W.H. (b)	Revenue (c)	Average Revenue per KWH (cents)	Number of ((per Bills r July 31	
		\\\-\'\	(-)	\"	(0.0000)	(e)	(f)
1 2 3 4 5 6 7 8 9	13 5 6 9 10 3 M	Residential Storage Heat Commercial Industrial Private Area St Lighting Hot Water Off Peak Municipal Street Lighting	71,643,739 102,810 9,254,516 14,675,899 143,946 263,522 2,208 5,852,767 915,255	11,527,940.73 12,290.67 1,592,668.98 2,097,431.40 30,432.26 35,783.92 399.57 854,705.12 135,778.75	(d) 0.1609 0.1195 0.1721 0.1429 0.2114 0.1358 0.1810 0.1460 0.1484	8,787 9 1,219 60 630 107 1 110	8,760 9 1,224 63 635 101 1 110
12 13 14 15 16 17 18 19 20							
		ES TO ULTIMATE RS (page 37 Line 11)	102,854,662	16,287,431.40	0.1584	10,924	10,904

ELECTRIC OPERATION AND MAINTENANCE EXPENSES

1. Enter in the space proved the operation and maintenance expenses for the year

2. If the increases and decreases are not derived from previously reported figures, explain in footnote Increase or Account Amount for Year (Decrease) from Line (a) (b) Preceding Year No. (c) **POWER PRODUCTION EXPENSES** 2 STEAM POWER GENERATION 3 Operation: 4 500 Operation supervision and engineering 5 501 Fuel 6 502 Steam Expenses 7 503 Steam from other sources 8 504 Steam transferred - Cr. 9 505 Electric expenses 10 506 Miscellaneous steam power expenses 11 507 Rents 12 **Total Operation** 0.00 0.00 13 Maintenance: 14 510 Maintenance supervision and engineering 15 511 Maintenance of Structures 16 512 Maintenance of boiler plant 17 513 Maintenance of electric plant 18 514 Maintenance of miscellaneous steam plant 19 **Total Maintenance** 0.00 0.00 20 Total power production expenses -steam power 0.00 0.00 21 **NUCLEAR POWER GENERATION** 22 Operation: 23 517 Operation supervision and engineering 24 518 Fuel 25 519 Coolants and water 26 520 Steam Expenses 27 521 Steam from other sources 28 522 Steam transferred -- Cr. 523 Electric expenses 29 524 Miscellaneous nuclear power expenses 30 31 525 Rents 32 Total Operation 0.00 0.00 33 Maintenance: 34 528 Maintenance supervision and engineering 35 529 Maintenance of Structures 36 530 Maintenance of reactor plant 37 531 Maintenance of electric plant 532 Maintenance of miscellaneous nuclear plant 38 39 **Total Maintenance** 0.00 0.00 40 Total power production expenses -nuclear power 0.00 0.00 41 **HYDRAULIC POWER GENERATION** 42 Operation: 43 535 Operation supervision and engineering 44 536 Water for power 45 537 Hydraulic expenses 46 538 Electric expenses 539 Miscellaneous hydraulic power generation expenses 47 48 540 Rents 49 **Total Operation** 0.00 0.00

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, 1, 1, 144	ELECTRIC OPERATION AND MAINTENANCE EXPENSES - (continued	Page 40
			Increase or
Line	Account	Amount for Year	(Decrease) from
No.	(a)	(b)	Preceding Year
	·		(c)
1	HYDRAULIC POWER GENERATION - Continued		
2	Maintenance:	·	
3	541 Maintenance Supervision and engineering		
4	542 Maintenance of structures		
5	543 Maintenance or reservoirs, dams and waterways		
6	544 Maintenance of electric plant		
7	545 Maintenance of miscellaneous hydraulic plant		
8	Total maintenance	NONE	NONE
9	Total power production expenses - hydraulic power	NONE	NONE
10	OTHER POWER GENERATION		
11	Operation:		,
12	546 Operation supervision and engineering		
13	547 Fuel	25,540.36	9,472.40
14	548 Generation Expenses	(759.00)	(759.00
15	549 Miscellaneous other power generation expense	2,114.69	927.88
16	550 Rents	·	
17	Total Operation	26,896.05	9,641.28
18	Maintenance:		
19	551 Maintenance supervision and engineering		
20	552 Maintenance of Structures		
21	553 Maintenance of generating and electric plant		
22	554 Maintenance of miscellaneous other power generation plant	166,168.15	83,057.33
23	Total Maintenance	166,168.15	83,057.33
24	Total power production expenses - other power	193,064.20	92,698.61
25	OTHER POWER SUPPLY EXPENSES		02,000.0
26	555 Purchased power	7,606,558.77	(1,072,421.55
27	556 System control and load dispatching	1,000,000	(,, , , , , , , , , , , , , , , , , ,
28	557 Other expenses	2,318,774.87	149,149.10
29	Total other power supply expenses	9,925,333.64	(923,272.45
30	Total power production expenses	10,118,397.84	(830,573.84
31	TRANSMISSION EXPENSES		(500,510.0.5)
32	Operation:		
33	560 Operation supervision and engineering		
34	561 Load dispatching		
35	562 Station expenses		
36	563 Overhead line expenses		
37	564 Underground line expenses		•
38	565 Transmission of electricity by others		4
39	566 Miscellaneous transmission expenses	′	
40	567 Rents		
41	Total Operation	NONE	NONE
42	Maintenance:	NONL	INONE
43	568 Maintenance supervision and engineering		
44	569 Maintenance of structures		
45	570 Maintenance of station equipment		
46	571 Maintenance of station equipment	0.00	0.00
47		0.00	0.00
48	572 Maintenance of underground lines		
49	573 Maintenance of miscellaneous transmission plant Total maintenance	0.00	0.00
50		0.00	0.00
อบ	Total transmission expenses	0.00	0.00

Line Account		ELECTRIC OPERATION AND MAINTENANCE EXPENSES - Co	entinued	
Line Account				Increase or
No. (a) (b) Preceding Year (c)	Line	Account	Amount for Year	
DISTRIBUTION EXPENSES				
DISTRIBUTION EXPENSES	'''	(a)	(b)	-
2	1	DISTRICTION EXPENSES		(C)
3 580 Operation supervision and engineering 581 Load dispatching (Operation Labor) 5 582 Station expenses 36,475.06 (30,242.66) 5 583 Overhead line expenses 3,402.13 80.613 5 88 Street lighting and signal system expenses 48,970.94 (4,481.26) 5 88 Street lighting and signal system expenses 48,970.94 (4,481.26) 5 88 Customer installations expenses 20,057.54 (10,011.26) 5 589 Rents 20,057.54 (10,011.26) 5 590 Rents 275.191.27 35,983.87 14 Maintenance: 0.0 5 590 Maintenance of structures 0.0 0.0 5 93 Maintenance of structures 0.0 0.0 5 93 Maintenance of structures 62,746.73 (2,631.26) 5 95 Maintenance of ine transformers 9,685.58 57,729.10 2 595 Maintenance of meters 16,319.64 514.14 2 595 Maintenance of meters 16,319.64 514.14 2 595 Maintenance of meters 16,319.64 514.14 2 596 Maintenance of meters 16,319.64 514.14 2 597 Maintenance of meter	1 1		i	
581 Load dispatching (Operation Labor)				
5 582 Station expenses 36,475.06 (30,242.66) 6 583 Overhead line expenses 3,402.13 806.13 7 584 Underground line expenses 3,402.13 806.13 8 585 Street lighting and signal system expenses 48,970.94 (4,481.26) 10 586 Miscellaneous distribution expenses 20,057.54 (10,611.26) 15 587 Customer installations expenses 20,057.54 (10,611.26) 15 588 Rents 166,285.60 80,512.92 25 589 Rents 275,191.27 35,983.87 15 590 Maintenance of structures 0.00 (6,73.139) 15 591 Maintenance of structures 0.00 (6,73.139) 15 593 Maintenance of structures 0.00 (6,73.139) 15 593 Maintenance of or overhead lines 61,1332.94 (77,778.19) 15 594 Maintenance of miscellaneous distribution plant 62,746.73 (2,631.26) 25 595 Maintenance of miscellaneous distribution plant 70,819.64 514.14 23 598 Maintenance of miscellaneous distribution plant 704.33.45 (80,297.60) 26 Total distribution expenses 1,024,624.72 (44,313.73) 27 Operati				
6 583 Overhead line expenses 3,402,13 8,06,13 5 586 Mider expenses 49,870,94 (4,481,26) 1 587 Customer installations expenses 20,067,54 (10,611,26) 1 588 Miscellaneous distribution expenses 166,285,60 80,512,92 589 Rents 275,191,27 35,983,87 14 Maintenance Supervision and engineering 275,191,27 35,983,87 591 Maintenance supervision and engineering 590 Maintenance of structures 0,00 - 592 Maintenance of structures 0,00 - - 593 Maintenance of ine transformers 9,595,58 (6,731,39) 595 Maintenance of ine transformers 9,595,58 5,729,10 595 Maintenance of ine transformers 9,595,58 5,729,10 595 Maintenance of meters 16,319,64 514,14 40 54,427,72 (44,513,73) 596 Maintenance of miscellaneous distribution plant 704 Installation expenses 1,024,624,72 (44,513,73) 256 Total distribution expenses 1,024,624,72 (44,513,73) (52,277,60) (52,277,60)				
7 584 Underground line expenses 3,402.13 806.13 8 585 Street lighting and signal system expenses 20,057.54 (10,611.26) 10 587 Customer installations expenses 20,057.54 (10,611.26) 15 588 Miscellaneous distribution expenses 166,285.60 80,512.92 25 589 Rents 166,285.60 80,512.92 590 Maintenance: 275,191.27 35,983.87 44 Maintenance: 0,00 0 591 Maintenance of structures 0,00 0 (6,731.39) 591 Maintenance of vorethead lines 611,332.94 (77,178.19) 594 Maintenance of vorethead lines 62,746.73 (2,531.26) 595 Maintenance of vorethead lines 9,695.58 5,729.10 595 Maintenance of street lighting and signal systems 16,319.84 514.14 259 Maintenance of miscellaneous distribution plant 749,433.45 (80,297.60) 259 Maintenance of miscellaneous distribution plant 749,433.45 (80,297.60) 26 Total distribution expenses 1,024,624.72 (44,313.73) 27 Operation:			36,475.06	(30,242.66)
8 585 Street lighting and signal system expenses 3,402.13 806.13 9 586 Meter expenses 48,970.94 (4,481.26) 10 587 Customer installations expenses 166,285.60 80,512.92 588 Miscellaneous distribution expenses 166,285.60 80,512.92 589 Rents 170tal operation 275,191.27 35,983.87 44 Maintenance 34 Maintenance of structures 0.00 - 590 Maintenance of structures 0.00 - - 593 Maintenance of structures 0.00 - - 593 Maintenance of structures 0.00 - - 595 Maintenance of structures 9,695.58 (6,731.39) 595 Maintenance of ine transformers 9,695.58 5,729.10 595 Maintenance of street lighting and signal systems 9,695.58 5,729.10 596 Maintenance of mierers 16,319.64 514.14 598 Maintenance of mierers 16,319.64 514.14 598 Maintenance of mierers 16,319.64 514.14 598 Maintenance of mierers 1,024,624.72 (44,313.73)			1	
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11 588 Miscellaneous distribution expenses 166,285.60 80,512.92 589 Rents 275,191.27 35,983.87 14 Maintenance: 275,191.27 35,983.87 590 Maintenance supervision and engineering 0.00 591 Maintenance of structures 0.00 591 Maintenance of structures 0.00 (6,731.39) 593 Maintenance of verhead lines 611,332.94 (77,178.19) 595 Maintenance of underground lines 62,746.73 (2,631.26) 595 Maintenance of line transformers 9,595.58 5,729.10 596 Maintenance of effecting and signal systems 16,319.64 514.14 25 System Maintenance of miscellaneous distribution plant 749,433.45 (80,297.60) 26 Total distribution expenses 1,024,624.72 (44,313.73) 27 Operation: 90.2 Meter reading expenses 19,799.99 (10,026.87) 28 907 Supervision 96,945.53 (11,225.75) 39 904 Uncollectible accounts (64,973.53) (159,973.53) 39 905 Miscellaneous customer accounts expenses 20,774.95 10,196.99 30 907 Miscellaneous sales expenses 70,971.12 827.33 30 Deperation: <td></td> <td>•</td> <td>48,970.94</td> <td>(4,481.26)</td>		•	48,970.94	(4,481.26)
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Maintenance:	13	Total operation	275.191.27	35,983,87
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23 598 Maintenance of miscellaneous distribution plant 749,433.45 (80,297.60) 24 Total distribution expenses 1,024,624.72 (44,313.73) 26 CUSTOMER ACCOUNTS EXPENSES 1,024,624.72 (44,313.73) 27 Operation: 901 Supervision 96,945.53 (11,225.75) 29 901 Meter reading expenses 19,799.99 (10,026,67) 30 902 Meter reading expenses 220,774.95 10,195.99 30 903 Customer records and collection expenses 220,774.95 10,195.99 31 904 Uncollectible accounts (64,973.53) (159,973.53) 32 905 Miscellaneous customer accounts expenses 269.50 521.37 33 Total customer accounts expenses 273,216.44 (170,508.59) 34 SALES EXPENSES 70,971.12 827.33 35 Operation: 915 Supervision 916 Miscellaneous sales expenses 70,971.12 827.33 36 915 Miscellaneous sales expenses 70,971.12 827.33 416 Miscellaneous sales expenses 70,971.12 827.33			4004004	ا ا
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904 Uncollectible accounts (64,973.53) (159,973.53) 32 905 Miscellaneous customer accounts expenses 669.50 521.37			220,774.95	10,195.99
32 905 Miscellaneous customer accounts expenses 669.50 521.37 33 Total customer accounts expenses 273,216.44 (170,508.59) 34 SALES EXPENSES 273,216.44 (170,508.59) 35 Operation: 35 0 Operation: 36 911 Supervision 37 912 Demonstrating and selling expenses 70,971.12 827.33 39 916 Miscellaneous sales expenses 70,971.12 827.33 40 ADMINISTRATIVE AND GENERAL EXPENSES 70,971.12 827.33 41 ADMINISTRATIVE AND GENERAL EXPENSES 207,828.00 (46,980.83) 42 Operation: 207,828.00 (46,980.83) 43 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 266,325.42 12,018.82 46 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50		904 Uncollectible accounts	(64,973.53)	
Total customer accounts expenses 273,216.44 (170,508.59)		905 Miscellaneous customer accounts expenses		
34 SALES EXPENSES 35 Operation: 36 911 Supervision 37 912 Demonstrating and selling expenses 38 913 Advertising expenses 39 916 Miscellaneous sales expenses 40 Total sales expenses ADMINISTRATIVE AND GENERAL EXPENSES Operation: 43 920 Administrative and general salaries 207,828.00 (46,980.83) 44 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 46 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 51 929 Store Expense 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55	33	Total customer accounts expenses		
36 911 Supervision 37 912 Demonstrating and selling expenses 38 913 Advertising expenses 39 916 Miscellaneous sales expenses 40 Total sales expenses 41 ADMINISTRATIVE AND GENERAL EXPENSES Operation: 207,828.00 43 920 Administrative and general salaries 207,828.00 (46,980.83) 49 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 207,828.00 (46,980.83) 45 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 38,586.82 519.06 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 51 929 Store Expense 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55	34	SALES EXPENSES		
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37 912 Demonstrating and selling expenses 70,971.12 827.33 38 913 Advertising expenses 70,971.12 827.33 39 916 Miscellaneous sales expenses 70,971.12 827.33 40 Total sales expenses 70,971.12 827.33 41 ADMINISTRATIVE AND GENERAL EXPENSES 207,828.00 (46,980.83) 42 Operation: 207,828.00 (46,980.83) 43 920 Administrative and general salaries 266,325.42 12,018.82 45 921 Office supplies and expenses transferred - Cr 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 51 929 Store Expense 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55				•
38 913 Advertising expenses 70,971.12 827.33 39 916 Miscellaneous sales expenses 70,971.12 827.33 40 Total sales expenses 70,971.12 827.33 41 ADMINISTRATIVE AND GENERAL EXPENSES 207,828.00 (46,980.83) 42 Operation: 207,828.00 (46,980.83) 44 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 1,182,901.85 (143,085.23) 51 929 Store Expense 42,207.06 9,436.28 52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55				
39 916 Miscellaneous sales expenses 70,971.12 827.33 40 Total sales expenses 70,971.12 827.33 41 ADMINISTRATIVE AND GENERAL EXPENSES 207,828.00 (46,980.83) 42 Operation: 207,828.00 (46,980.83) 43 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 51 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55			70 971 12	827 33
Total sales expenses ADMINISTRATIVE AND GENERAL EXPENSES Operation: 920 Administrative and general salaries 921 Office supplies and expenses 922 Administrative expenses transferred - Cr 923 Outside services employed 71,964.41 924 Property insurance 925 Injuries and damages 926 Employee pensions and benefits 927 Store Expense 930 Miscellaneous general expenses 931 Rents 932 Regulatory commission expenses 933 Rents 934 Regulatory commission expenses 935 Regulatory commission expenses 936 Regulatory commission expenses 937 Rents 938 Regulatory commission expenses 939 Rents 930 Miscellaneous general expenses 930 Regulatory commission expenses 930 Rents 931 Rents 932 Regulatory commission expenses 933 Rents 933 Rents 934 Rents 935 Regulatory commission expenses 935 Rents 937 Rents 937 Rents 937 Rents 938 Regulatory commission expenses 939 Regulatory commission expenses 930 Respenses 930 Rents 930 Rents 930 Rents 930 Rents 930 Rents 930 Rents			70,571.12	021.33
ADMINISTRATIVE AND GENERAL EXPENSES Operation: 920 Administrative and general salaries 921 Office supplies and expenses 922 Administrative expenses transferred - Cr 923 Outside services employed 924 Property insurance 925 Injuries and damages 926 Employee pensions and benefits 927 Store Expense 929 Store Expense 930 Miscellaneous general expenses 931 Rents ADMINISTRATIVE AND GENERAL EXPENSES 046,325.42 046,980.83) 046,980.83) 046,980.83) 047,964.41 046,980.83) 047,964.41 046,980.83) 047,964.41 046,980.83) 047,964.41 047,			70 071 12	907 20
42 Operation: 920 Administrative and general salaries 207,828.00 (46,980.83) 44 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 71,964.41 3,243.84 46 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 42,207.06 9,436.28 52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55			10,811.12	021.33
43 920 Administrative and general salaries 207,828.00 (46,980.83) 44 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 71,964.41 3,243.84 46 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 42,207.06 9,436.28 52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55	1			
44 921 Office supplies and expenses 266,325.42 12,018.82 45 922 Administrative expenses transferred - Cr 71,964.41 3,243.84 46 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 1,182,901.85 (143,085.23) 51 929 Store Expense 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55			607.000.55	/,,,
45 922 Administrative expenses transferred - Cr 46 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 42,207.06 9,436.28 51 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55				
46 923 Outside services employed 71,964.41 3,243.84 47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 42,207.06 9,436.28 51 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55			266,325.42	12,018.82
47 924 Property insurance 38,586.82 519.06 48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 929 Store Expense 42,207.06 9,436.28 52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55				
48 925 Injuries and damages 817.00 307.00 49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 42,207.06 9,436.28 52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55				
49 926 Employee pensions and benefits 1,182,901.85 (143,085.23) 50 928 Regulatory commission expenses 929 Store Expense 42,207.06 9,436.28 52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55			1	
50 928 Regulatory commission expenses 51 929 Store Expense 52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55			1 :	1
50 928 Regulatory commission expenses 51 929 Store Expense 52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55			1,182,901.85	(143,085.23)
52 930 Miscellaneous general expenses 42,207.06 9,436.28 53 931 Rents 83,357.55 83,357.55				1
53 931 Rents 83,357.55 83,357.55				j
53 931 Rents 83,357.55 83,357.55		930 Miscellaneous general expenses	42,207.06	9,436,28
		931 Rents	1	
	54	Total operation		

	ELECTRIC OPERATION AND MAINTENANCE EX	PENSES - Contir	raye 42
Line No.	Account (a)	Amount for Year (b)	Increase or (Decrease) from Preceding Year (c)
1	ADMINISTRATIVE AND GENERAL EXPENSES - Cont.		(0)
2	Maintenance:		
3	932 Maintenance of general plant	38,060.18	(19,951.05)
4	933 Transportation	56,976.66	(2,356.43)
5	Total Maintenance	95,036.84	(22,307.48)
6	Total Administrative and General Expenses	1,989,024.95	(103,490.99)
7	Total Electric Operation and Maintenance Expenses	13,476,235.07	(1,148,059.82)

SUMMARY OF ELECTRIC OPERATION AND MAINTENANCE EXPENSES

Line	Functional Classification	Operation	Maintenance	Total
No.	(a)	(b)	(c)	(d)
8	Power Production Expenses			
9	Electric Generation:			
10	Steam Power:			
11	Nuclear Power			
12	Hydraulic Power		·	
13	Other Power	26,896.05	166,168.15	193,064.20
14	Other Power Supply Expenses	9,925,333.64		9,925,333.64
	Total Power Production Expenses	9,952,229.69	166,168.15	10,118,397.84
	Transmission Expenses		0.00	0.00
	Distribution Expenses	275,191.27	749,433.45	1,024,624.72
18	Customer Accounts Expenses	273,216.44		273,216.44
	Sales Expenses	70,971.12		70,971.12
	Administrative and General Expenses	1,893,988.11	95,036.84	1,989,024.95
21	Power Production Expenses	2,513,366.94	844,470.29	3,357,837.23
22	Total Electric Operation & Maint	12,465,596.63	1,010,638.44	13,476,235.07

23 Ratio of operating expenses to operating revenues (carry out decimal two places, (e.g., 0.00%)

Compute by dividing Revenues (Acct 400) into the sum of Operation and Maintenance Expenses (Page 42, line 22 (d), Depreciation (Acct 403) and Amortization (Acct 407)

91.51%

24 Total salaries and wages of electric department for year, including amounts charged to operating expenses, construction and other accounts.

1,847,887.44

25 Total number of employees of electric department at end of year including administrative, operating, maintenance, construction and other employees (including part-time employees) 22

<u>م</u> [Page 49 Annual Report of the Town of Marbl	the Town of N	Narblehead				Year Ended	Year Ended December 31, 2016	
			TAXES CHARGEI	TAXES CHARGED DURING THE YEAR	R				
Ē	 This schedule is intended to give the account distribution of total 		The aggregate of ea	3. The aggregate of each kind of tax should be listed under the appropriate	sted under the approprial	9	5. For any tax which it	5. For any tax which it was necessary to apportion	ю
taxes	taxes charged to operations and other final accounts during the year.		heading of "Federal", "S	heading of "Federal", "State" and "Local" in such manner that the total tax	manner that the total tax		more than one utility de	more than one utility department account, state in a	в -
Do	Do not include gasoline and other sales taxes which have been		for each State and for a	for each State and for all subdivisions can be readily ascertained.	dily ascertained.		footnote the basis of apportioning such tax.	portioning such tax.	
charge	charged to accounts to which the material on which the tax was levied	-	4. The accounts to which	4. The accounts to which the taxes charged were distributed should be	distributed should be	٠	6. Do not include in this	Do not include in this schedule entries with respect	spect
which	which the tax was levied was charged. If the actual or estimated amounts	ounts	shown in columns (c) to	shown in columns (c) to (h). Show both the utility department and number	department and number		to deferred income taxe	to deferred income taxes, or taxes collected through	righ
of such	of such taxes are known, they should be shown as a footnote and designated whether extimated or extinct		of account charged. Fo	of account charged. For taxes charged to utility plant show the number of	fant show the number of		payroll deductions or ott	payroll deductions or otherwise pending transmittal	Tel
b		Total Total	ine appropriate balance	ine appropriate balance sheet plant account of subaccount.	Descount.		of such taxes to the taxing authority.	ng authority.	
		Charged							
Line	Kind of Tax	During Year	Electric	Gas					
Ö.	(a)	(omit cents) (b)	Acct 408,409 (c)	Acct 408,409 (d)	(0)	€	(<u>G</u>	٤	6
	1 Massachusetts Sales Tax	121,513.00	241000		/		(6)	(11)	Ð
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25	10.0								
27	0 1				-				
28	a TOTALS	121,513.00							

Page 50

	OTHER UTILITY	OPERATING INCO	ME (Account 41	4)	Page 50
	Report below the	e particulars called	for in each colum	<u>.</u>	
Line No.	Property (a)	Amount of Investment (b)	Amount of Department (c)	Amount of Operating Expenses (d)	Gain or (Loss) from Operation (e)
1 2	N/A				
3					
5					
6 7					
8					
9					
10 11					
12					
13 14			 		
15		.			
16 17					
18					
19 20					
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22 23				,	·
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25 26 27					
27 28		1			
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30 31					
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42 43					
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45 46					1
47				ļ	
48 49					
50					<u> </u>
51	TOTALS				

INCOME FROM MERCHANDISE, JOBBING, AND CONTRACT WORK (Account 415)

Report by utility departments the revenue, costs, expenses, and net income from merchandising, jobbing, and contract work during the year.

Line No.	and contract work during the year. Item (a)	Electric Department (b)	Gas Department (c)	Other Utility Department (d)	Total (e)
	Revenues:	N/A	(6)	(d)	(e)
2					
3	allowances and returns				
4					
5	ī		·		
6		1			
7					
8	I .	ł			
9					
10		0.00	0.00	0.00	0.00
11					
12					
	Costs and Expenses:				
14 15					}
	1	•			
16					
	Materials				
	Outside Service Labor		-		
19 20			į		
21			i		
22					
23					
24	•				
25			i		
	Sales Expenses				
	Customer accounts expenses		-		
	Administrative and general expenses		[
29	Figure 2010 and Golicial expenses	1	İ		
30			4		
31					
32			.		
33			·		
34		1			
35					
36	•	1			
37	,				
38					
39					
40					
41					•
42			-		
43			[-		
44					
45					
46					
47					
48					
49					
50	TOTAL COSTS AND EXPENSES	0.00	0.00	0.00	0.00
51	Net Profit (or loss)	0.00	0.00	0.00	0.00

SALES FOR RESALE (Account 447)

- Report sales during year to other electric utilities and to cities or other public authorities for distribution to ultimate consumers.
- Provide subheadings and classify sales as to (1) Associated Utilities, (2) Nonassociated Utilities, (3) Municipalities, (4) R.E.A. Cooperatives, and (5) Other Public Authorities.
 For each sale designate statistical classification in column (b thus: firm power, FP; dump or surplus power, DP; other, G,
- and place and "x" in column (c) if sale involves export across a state line.
- 3. Report separately firm, dump, and other power sold to the same utility. Describe the nature of any sales classified as Other Power, column (b).
- If delivery is made at a substation indicate ownership in column (e), thus: respondent owned or leased, RS; customer owned or leased, CS.

			Export			Kwc	r Kva of Den	nand
Line No.	Sales to	Statistical Classification (b)	Across State Line (c)	Point of Delivery (d)	Sub Station (e)	Contract Demand (f)	Avg mo. Maximum Demand (g)	Annual Maximum Demand (h)
1	NONE							
2 3								
4								Ì
5	•			!				
6 7								
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9								<u> </u>
10 11								
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37		-				ľ		
38		ĺ			1		j	
39 40					1	1		
41					-		- [
42								

SALES FOR RESALE (Account 447) - Continued

5. If a fixed number of kilowatts of maximum demand is specified in the power contract as a basis of billings to the customer this number should be shown in column (f). The number of kilowatts of maximum demand to be shown in column (g) and (h) should be actual based on monthly readings and should be furnished whether or not used in the determination of demand charges. Show in column (i) type of demand reading (instantaneous, 15, 30, or 60 minutes

integrated).

- 6. The number of kilowatt-hours sold should be the quantities shown by the bills rendered to the purchaser
- 7. Explain any amounts entered in column (n) such ϵ fuel or other adjustments.
- If a contract covers several points of delivery and small amounts of electric energy are delivered at each point, such sales may be grouped.

Type at	Voltage			nue (Omit Ce	N. S. 12460		Revenue per kwh	
Demand Reading (I)	at Which Delivered (i)	Kilowatt- Hours (k)	Capacity Charges (I)	Energy Charges (m)	Other Charges (n)	Total (0)	(CENTS) (0.0000) (p)	Line No
		0	0.00	(0)	N. 7	0.00	N/A	·
							••	
								10
								1:
		-	·					1; 1,
							,	1
		:						10 11
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								20 2
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		:			·	·		24
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								27 28
		·						29 30
								3.
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					,			34 35
								36
							·	38
	·							39 40
	TOTALS:	0	0.00	0.00		0.00		42

PURCHASED POWER (Account 555) (EXCEPT INTERCHANGE POWER)

- Report power purchased for resale during the year.

 Exclude from this schedule and report on page 56 particulars concerning interchange power transactions during the year.
- 2. Provide subheadings and classify purchases as to (1) Associated Utilities, (2) Nonassociated Utilities, (3) Associated Nonutilities, (4) Other Nonutilities, (5) Municipalities, (6) R.E.A Cooperatives, and (7) Other Public

Authorities. For each purchase designate statistical classification in column (b), thus: firm power, FP; dump or surplus power, DP; other, O, and place an "x" in column (c) if purchase involves import across a state line.

3. Report separately firm, dump, and other power purchased from the same company. Describe the nature of any purchases classified as Other Power, column (b).

PAR.		3 K 5 K 20 K 3 K 3	Santa (Fy		232%	Kwo	or Kva of Der	nand
Line No.	Purchased from (a)	Statistical Classification (b)	Across State Line (c)	Point of Receipt (d)	Sub Station (e)	Contract Demand (f)	Avg mo. Maximum Demand (g)	Annual Maximum Demand (h)
1	MMWEC:		(T. C. C. C. C. C. C. C. C. C. C. C. C. C.	X-7	13/	47	19/ 5	25 g 22"(#1)
2	New York Power Authority	FP	Х	TOWN LINE		1322		
		0		TOWN LINE]]	2716		
	Stonybrook Intermediate	0		TOWN LINE	:	9206		
	Nuclear Mix 1	0	Х	TOWN LINE		67		
6	Nuclear Project 3 (Millstone)	0	Х	TOWN LINE		682		
7	Nuclear Project 4 (Seabrook)	0	Х	TOWN LINE		1086		
	Nuclear Project 5 (Seabrook)	0	Х	TOWN LINE		1320		
	W. F. Wyman	0		TOWN LINE		1730		
	Hydro Quebec	0	Х	TOWN LINE			İ	
	System Power	DP ·		TOWN LINE				
	Eagle Creek	0		TOWN LINE	1	600		•
	Hancock Wind	0	Х	TOWN LINE		951		
14	•					ĺ		
15					1		1	
16		i				i	j	
17	C., b.t. c. i Binner C							
	Subtotal MMWEC							
19	Berkshire Wind Power Coop	0		TOWN LINE		· [l	
21	Eversource Energy Service Co	0		TOWN LINE	1	ļ		
22		Ī				ļ		
23				,]		ļ	
24			1		- 1			
30]		
31			i		- 1			
32							1	
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37				ł		1	1	
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41		1		.	ĺ		1	
42					 -			·

PURCHASED POWER (Account 555) (EXCEPT INTERCHANGE POWER)

- 4. If receipt of power is at a substation indicate ownership in column (e), thus: respondent owned or leased, RS; seller owned or leased, SS.
- 5. If a fixed number of kilowatts of maximum demand is specified in the power contract as a basis of billing, this number should be shown in column (f). The number of kilowatts of maximum demand to be shown in columns (g) and (h) should be actual based on monthly readings and

should be furnished whether or not used in the determination of demand charges. Show in column (i) type of demand reading (instantaneous, 15, 30, or 60 minutes integrated).

- 6. The number of kilowatt hours purchased should be the quantities shown by the power bills.
- 7. Explain any amount entered in column (n) such as fuel or other adjustments.

Type of	Voltage		Cost	of Energy (Om	it Cents)		KWH	
Demand	at Which	Kilowatt-	Capacity	Energy	Other	Party of Full St	(CENTS)	
Reading	Delivered	Hours	Charges	Charges	Charges	Total	(0.0000)	Lin
(0)	(i)	(k)	(l)	(m)	(n) **	(0)	(p)	No
60 Minutes	22,900	9,001,026				297,190.10	#0.0000]
60 Minutes	22,900	47,805				87,382.52	\$0.0330 \$1.8279	
60 Minutes	22,900	2,858,614				1,131,390.10	\$0.3958	
60 Minutes	22,900	655,414				345,203.07	\$0.5267	
60 Minutes	22,900	5,470,063		Ï		924,758.85	\$0.5267 \$0.1691	1
60 Minutes	22,900	8,611,134				1,003,274.43	\$0.1691 \$0.1165	;
60 Minutes	22,900	12,355,516				134,121.56		1 :
60 Minutes	22,900	1,523,336				99,195.02	\$0.0109	5
60 Minutes	22,900	239,898				52,513.20	\$0.0651	,
60 Minutes	22,900	47,718,000		:		i ·	N/A	•
60 Minutes	22,900	1,388,836				3,421,070.80	\$0.0717	1
60 Minutes	22,900	104,465				98,185.61	\$0.0707	12
OO WIII IGICS	22,300	104,403				7,366.34	\$0.0705	
								14
					·			15
								16
		89,974,107	0.00	0.00	0.00	7,601,651.60	\$0.0845	17
60 Minutes	22,900	3,194,787				488,367.27	\$0.1529	19
60 Minutes	22,900					3,793.08	40,,020	20
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	TOTALS:	93,168,894	0.00	0.00	0.00	8,093,811.95	0.0869	42

	Allinai ichoi	Aminal report of the Town of Marbiehead Included in Account REE	ded in Accoun	1+ 665)		Year Ended December 31, 2016	per 31, 2016
1. Report below the kilowatt-hours received and delivered during the year and the net charge or credit under interchange power agreements. 2. Provide subheadings and classify interchanges as to (1) Associated Utilities, (2) Nonassociated Utilities, (3) Associated Nonutilities, (4) Other Nonutilities, (6) R.E.A. Cooperatives, and (7) Other Public Authorities. For each interchange across a state line place an "x" in column (b). 3. Particulars of settlements for interchange power		shall be furnished in Part B, Details of Settlement for Interchange Power. If settlement for any transaction also includes credit or debit amounts other than for increment generation expenses, show such other component amounts separately, in addition to debit or credit for increment generation expenses, and give a brief explanation of the factors and principles under which such other component amounts were determined. If such settlement represents the net of debits and credits under an interconnection, power pooling.	ided in Accou of Settlement fo or settlement fo is other than for ow such other addition to debit Appnses, and git Appnses, and git of principles und its were deter- its the net of debit it, power pooling	nt 555) r r rr its	coordination, or other such arrang copy of the annual summary of trainings among the parties to the agreamount of settlement reported in transaction does not represent all credits covered by the agreement, a description of the other debits are the amounts and accounts in which amounts are included for the year.	coordination, or other such arrangement, submit a copy of the annual summary of transactions and bill-lings among the parties to the agreement. If the amount of settlement reported in this schedule for any transaction does not represent all of the charges and credits covered by the agreement, furnish in a footnote a description of the other debits and credits and state the amounts and accounts in which such other amounts are included for the year.	mit a mid bill-he e for any less and la state in state
	A. S. Inter-	Summary of Interchange According to Companies and Points of Interchange	to Companie	s and Points of I	Interchange		
Line Name of Company No. (a)	Across State Lines (b)	Point of Interchange (c)	Voltage at Which Inter- changed (d)	Received (a)	Kilowett-hours Delivered (f)	Net Difference (g)	Amount of Settlement
10 NEPEX				114,766,410	98,191,990	16,574,420	1,831,521.69
12			TOTALS	114,766,410	98,191,990	16,574,420	1,831,521.69
Line Name of Company No. (I)		B. Details of Settlement for Interchange Power Explanation	ent for Interch Explanation	tange Power			Amount
NEPEX	Interchange Expense Nepool and Administr	Interchange Expense Nepool and Administration Expense					1,653,304.58 1,853,304.58 178,217.11
21						TOTAL	1.831.521.69

	ELECTRIC ENER	GY ACCOUNT	:	1 490 07
Report belov	w the information called for concerning the disposition of	electric energy generated, purch	ased and interchanged for the	ne year.
Line.	ltem ·			Kilowatt-hours
No.	(a)			(b)
1	SOURCES OF ENERGY	,		
2	Generation			
3	Steam			
4	Nuclear			
5	Hydro			
6	Other - Diesel			44,514
. 7	Total Generation		ŀ	44,514
8	Purchases		-	93,168,894
9		(In (gross)	114,766,410	,,
10	Interchanges	< Out (gross)	98,191,990	
11		(Net (Kwh)		16,574,420
12		(Received		
13	Transmission for/by others (wheeling)	< Delivered		
14	•	(Net (Kwh)	I	
15	TOTAL			109,787,828
16	DISPOSITION OF ENERGY			
17	Sales to ultimate consumers (including interd	epartmental sales)		102,854,662
	Sales for resale			
19	Energy furnished without charge			
20	Energy used by the company (excluding station	on use):		
21	Electric department only	•		194,180
22	Energy losses		***	
23	Transmission and conversion lo	sses	0	
24	Distribution losses		6,738,986	
25	Unaccounted for losses			
26	Total energy losses	**************************************		6,738,986
27	Energy losses as percent of total	l on line 15	6.14%	
28	<u> </u>		TOTAL	109,787,828

MONTHLY PEAKS AND OUTPUT

- Report hereunder the information called for pertaining to simultaneous peaks established monthly (in kilowatts) and monthly output (in kilowatt-hours) for the combined sources of electric energy of respondent.
- Monthly peak col. (b) should be respondent's maximum kw load as measured by the sum of its coincidental net generation and purchase plus or minus net interchange, minus temporary delivertes (not interchange) of emergency power to another system. Monthly peak including such emergency delivertes should be shown in a footnote with a brief explanation.
- as to the nature of the emergency.
- 3. State type of monthly peak reading (instantaneous 15, 30, or 60 minutes integrated.)
- 4. Monthly output should be the sum of respondent's net generation and purchases plus or minus net interchange and plus or minus net transmission or wheeling. Total for the year should agree with line 15 above.
- If the respondent has two or more power systems not physically connected, the information called for below should be furnished for each system.

MARBLEHEAD

			MARBLEHEA	<u> </u>			
		· · · · · · · · · · · · · · · · · · ·		Monthly Peak			Monthly Output
			Day of	Day of		Type of	(kwh)
Line	Month	Kilowatts	Week	Month	Hour	Reading	(See Instr. 4)
No.	(a)	(b)	(c)	(d)	(e)	(f)	(g)
29	January	20,781	Tuesday	19	1900	Demand	10,062,756
30	February	20,808	Sunday	14	1900	Demand	8,990,136
31	March	17,307	Thursday	3	1900	Demand	8,597,546
32	April	17,343	Monday	4	2000	Demand	7,741,872
33	May	18,216	Tuesday	31	2100	Demand	7,846,020
34	June	17,991	Tuesday	21	1900	Demand	8,432,096
35	July	28,386	Friday	22	1800	Demand	11,558,142
36	August	29,835	Friday	12	1600	Demand	11,619,334
37	September	24,345	Friday	9	2000	Demand	8,643,888
38	October	16,245	Thursday	27	1900	Demand	7,889,895
39	November	18,162	Friday	21	1900	Demand	8,298,820
40	December	21,294	Monday	16	1800	Demand	10,107,323
41						TOTAL	109,787,828

GENERATING STATIONS

Page 58

GENERATING STATION STATISTICS (Large Stations) (Except Nuclear, See Instruction 10)

- Large stations for the purpose of this schedule are steam and hydro stations of 2,500 Hw* or more of installed capacity and other stations of 500 Kw* or more of installed capacity (name plate ratings) (*10,000 Kw and 2,500 Kw, respectively, if annual electric operating revenues of respondent are \$25,000,000 ore more.)
- If any plant is leased, operated under a license from the Federal Power Commission, or operated as a Joint facility, indicate such facts by the use of asterisks and footnotes.
- Specify if total plant capacity is reported in kva instead of kilowatts as called for on line 5.

- 4. If peak demand for 60 minutes is not available, give that which is available, sssspecifying period.
- If a group of employees attends more than one generating station, report on line 11 the approximate average number of employees assignable to each station.
- If gas is used and purchased on a therm basis, the B.t.u. content of the gas should be given and the quantity of fuel consumed converted to M ct. ft.
- 7. Quantities of fuel consumed and the average cost per unit of fuel consumered should be consistent with charges to expense 501 and

Line	Item	Plant	Plant	Plant
No.	(a)	(b)	(c)	(d)
1		Int. Comb.	(3)	(4)
2	Type of plant construction (conentional, outdoor			
	boiler, full autdoor, etc.)	Conventional	•	
3		1975	,	
4		1975		
5				
	plate ratings in kw)	5,500		
6	Net peag demand on plant-kilowatts (60 min.)	5,100		
7	Plant hours connected to load	0,100		
8	Net continuous plant capability, kilowatts:		•	
9	(a) When not limited by condenser water			
10	(b) When limited by consenser water			1
4.4	Average number of employees	2		
	Net generation, exclusive of station use	44,514		
	Cost of plant (omit cents):	17,017	4	
	Land and land rights	10,696.49		
	Structures and improvements	312,769.33]
	Reservoirs, dams, and waterways	312,709.33		
	Equipment costs	1,484,708.63	•	
	Roads, railrodadss, and bridges	1,404,700.03		1
19	Total cost	1,808,174.45		
20	Cost per kw of installed capacity	354.54	-	
	Production expenses:	334.34		
22	Operation supervision and engineering		•	
23	Station labor	166,168.15		
24	Fuel	9,628.92	-	
25	Suppliles and expenses, including water	1,355.69		
26	Maintenance	1,555.09		
27	Rents			
28	Steam from other sources			
29	Steam transferred - Credit	i		
30	 	177,152.76	·	
31	Total Production expenses Expenses per net Kwh (5 places)	3.97971	-	
	Expenses per ner kwn (a piaces) Fuel: Kind	No 2 Fuel Oil		· · · · · · · · · · · · · · · · · · ·
33	Unit: (Coal-tons of 2,000 lb.) (Oil-barrels of 42	NO Z I UCI OII		
30	' '	Barrels		•
34	gals.) (Gas-M cu. Ft.) (Nuclear, indicate) Quantity (units) of fuel consumed	89		
	Average heat content of fuel (B.t.u. per lb. Of coal,	60		
	i	138,000		
	per gal. Of oil or per cu. Ft. of gas) Average cost of fuel per unit del. f.o.b. plant	\$152.28		
	Average cost of fuel per unit censumed Average cost of fuel per unit consumed	L L		
	Average cost of fuel consumered per million B.t.u.	\$152.28		
		\$26.28		
46	Average cost of fuel consumer per kwh net gen.	\$0.3016		
41	Average B.t.u. per kwh net generation	10,970	l	
			Į	
42				

Annual Report of the Town of Marblehead

GENERATING STATION STATISTICS (Large Stations) - Contunued

(Except Nuclear, See Instuction 10)

547 as shown on Line 24

8. The items under cost of plant and production expenses represents accounts or combinations of accounts prescribed by the Uniform System of Accounts. Production expenses, however, do not include Purchased Power, System Control and Load Dispatching, and Other Expenses classified as "Other Power Supply Expenses."

9. If any plant is equipped with combinations of steam, hydro, internal combustion engine or gas turbine equipment, each should be reported as a separate plant. However, if a gas turbine unit functions in a combined operations with a conventional steam unit, the gas turbine shold be included with the steam station.

10. If the respondent operates a nuclear power generating station submit (a) a brief explanatory statement concerning accounting for the cost of power generated including any attribution of excess costs to research and development expenses: (b) a brief explanation of the fuel accounting specifying the accounting methods and types of cost units used with respect to tthe various components of the fuel cost, and (c) such additional information as may be informative concerning the type of plant, kind of fuel used, and other physical and operating characteristics of the plant.

Plant	Plant	Plant	Plant	Diant	Plant	11 :
(e)	(f)	(g)	(h)	(i)	(j)	Lin
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STEAM GENERATING STATIONS

- 1. Report the information called for concerning generating stations and equipment at end of year.
- 2. Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- 3. Designate any generating station or portion thereof for which the respondent is not the sole owner. If such property is leased from another company, give name of

lessor, date and term of lease, and annual rent. For any generating station, other than a leased station or portion thereof for which the respondent is not the sole owner but which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as percent ownership by respondent, name of co-owner, basis of sharing output,

					Boile	'S	
Line No.	Name of Station (a)	Location of Station	Number and Year Installed (c)	Kind of Fuel and Method of Firing (d)	Rated Pressure in lbs. (e)	Rated Steam Temperature* (f)	Rated Max. Continuous M ibs. Steam per Hour (g)
1 2 3 4 5	*** NONE ***						
6 7 8 9	NONE						
11 12 13 14 15	4				,		
16 17 18 19 20							
21 22 23 24 25							
26 27 28 29	· ·			:			·
31 32 33 34 35							
36 37							

STEAM GENERATING STATIONS -- Continued

expenses ro revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.

Designate any generating station or portion thereof leased to another company and give name or lesse, date and term of lease and annual rent and how determined. Specify whether lessee is an associated company.

5. Designate any plant or equipment owned, not operated, and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

		Steam		Name Plat in Kilo	watts					Station	
Year	_	Pressure at		At Minimum	At Maximum	Hydr Press	ogen sure**	Power	Voltage	Capacity Maximum	
Installed	Type	Throttle p.s.l.g.	R.P.M.	Hydrogen Pressure	Hydrogen Pressure	Min.	Max.	Factor	K.v.++	Name Plate Rating*+	Lin
(h)	(1)	(i)	(k)	(1)	(m)	(n)	(o)	(p)	(g)	(r)	No
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										1.	2
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	*** NONE ***						-			1	7
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					TOTALS	. 1			`	l i	36

HYDROELECTRIC GENERATING STATIONS

- Report the information called for concerning generating stations and equipment at end of year. Show associated prime movers and generators on the same line.
- 2. Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- 3. Designate any generating station or portion thereof for which the respondent is not the sole owner. If such

property is leased from another company give name of lessor, date and term of lease, and annual rent. For any generating station, other than a leased station, or portion therof, for which the respondent is not the sole owner but which the respondent operates or shares in the operation of, furnish a succinct statement explaining the arrangement and giving particulars as to such matters as

			j		Water W	/heels	
ine No.	Name of Station	Location (b)	Name of Stream	Attended or Unattended (d)	Type of Unit* (e)	Year Installed (f)	Gross Stati Head with Pond Full (g)
1					-307	77	(9)
2							
5	*** NONE ***						
6 7 8			<u> </u>				
9 0 1	·	· .	}				
3						·	
4 5 6							
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1 2 3							
4 5							
6 7							

HYDROELECTRIC GENERATING STATIONS - Continued

percent of ownership by respondent, name of co-owner basis of sharing output, expenses, or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.

 Designate any generating station or portion thereof leased to another company and give name of lessee, date and term of lease and annual rent and how determined. Specify whether lessee is an associated company.

5. Designate any plant or equipment owned, not operated and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are contemplated.

Wate	er Wheels -	inual rent and how det Continued	emineo.		Gen	erators			I	_
Design Head	R.P.M.	Maximum hp. Capacity of Unit at Design Head	Year Installed	Voltage	Phase	Fre- quency or d.c.	Name Plate Rating of Unit in Kilowatts	Number of Units in Station	Total Installed Generating Capacity in Kil- owatts (name plate ratings)	Line
(h)	(1)	(i)	(k)	(I)	(m)	(n)				No
(n)		*** NONE ***	(k)	(1)	(m)	(n)	(0)	(q)	(p)	No. 1 1 2 3 4 4 5 6 6 7 7 8 8 9 100 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33
										34 35 36 37 38
						TOTALS				39

Year Ended December 31, 2016

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COMBUSTION ENGINE AND OTHER GENERATING STATIONS (except nuclear stations)

- Report the information called for concerning generaing stations and equipment at end of year. Show associated prime movers and generators on the same line.
- Exclude from this schedule, plant, the book cost of which is included in Account 121, Nonutility Property.
- Designate any generating station or portion thereof for which the respondent is not the sole owner. If such

property is leased from another company, give name of lessor, date and term of leas, and annual rent. For any generating station, other than a leased station, or portion thereof, for which the respondent is not the sole owner but which the respondent operates or shares in the operation of furnish a succinct statement explaining the arragement and giving particulars as to such matters as percent owner-

				•	Prime Movers		
Line No.	Name of Station	Location of Station (b)	Diesel or Other Type Engine (c)	Name of Maker	Year Installed (e)	2 or 4 Installed (f)	Belted or Direct Connected (g)
	Wilkins 1	Woodfin Terrace	Diesel	General Motors	1975	2	Direct
2	Wilkins 2	Woodfin Terrace	Diesel	1	1975	2	
3 4 5 6 7 8 9 10 11 12 13	Wilkins 2	Woodfin Terrace	Diesel	General Motors	1975	2	Direct
15 16 17				·			
18 19 20 21							
22 23 24 25		:					
26 27 28 29 30							
31 32 33 34							
35 36 37 38 39							7

Page 65

COMBUSTION ENGINE AND OTHER GENERATING STATIONS-Continued (except nuclear stations)

ship by respondent, name of co-owner, basis of sharing output, expenses, or revenues, and how expenses and/or revenues are accounted for and accounts affected. Specify if lessor, co-owner, or other party is an associated company.

4. Designate any generating station or portion thereof leased to another company and give name of lessee, date and term of lease and annual rent and how determined.

Specify whether lessee is an associated company.

5. Designate any plant or equipment owned, not operated and not leased to another company. If such plant or equipment was not operated within the past year explain whether it has been retired in the books of account or what disposition of the plant or equipment and its book cost are comtemplated.

of Unit Prime Movers Installed Voltage Phase or d.c. In Kilowatts in Station (name plate ratings) Lir (name plate ratings) Lir (name plate ratings) Lir (name plate ratings) Lir (name plate ratings) Name (name plate ratings) Na	Prime	Movers - Conti	nued			Generat	ors			
3800 3800 1975 4180 3 60 2750 1 2750 3600 3800 1975 4180 3 60 2750 1 2750		of station Prime Movers	Installed			or d.c.	Rating of Unit in Kilowatts	of Units in Station	Generating Capacity in Kilowatts (name plate ratings)	Line
3600 3600 1975 4160 3 60 2750 1 2750	(h)									No.
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	3000	3000	19/5	4160	3	60	2750	1	2750	
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			SENERATING	STATION ST	'ATISTICS - (GENERATING STATION STATISTICS - (Small Stations)			Year Ended December 31, 2016	ecember 31,	2016	Page 66
1. Sma schedu 2,500 k installe and 2,5 revenur 2. Desti	1. Small generaling stations, for the p urpose of this schedule, are steam and hydro stations of less than 2,500 KW* and other stations of less than 500 KW* installed capacity (name plate ratings). (*10,000 KW and 2,500 KW, respectively, if annual electric operating revenues of respondent are \$25,000,000 or more. 2. Designate any plant leased from others, operated under a licentse from the Federat Power Commission,	. <u>E</u> . I		or operatedd as a joint facility, and statement of the facts in a footnote. 3. List plants appropriately under sustean, hydro, nuclear internal comb gas hurbine stations. For nuclear, stpage 69. 4. Specify if total plant capacity is re instead of kilowatts.	or operated as a joint facility, and give a concise statement of the facils in a forbrote. 3. List plants appropriately under subheadings for steam, hydro, nuclear listemal combustion engine and gas hubine stations. For nuclear, see instructions 10 page 59. 4. Specify if total plant capacity is reported in kva instead of kilowatts.	a concise adings for on engine and structions 10		5. If poak demand for 60 minudes give that which is available, spec 6. If any plant is equipped with o steam, hydro, internal combustic equipment, each should be repo plant. However, if the exhaust h turbine is utilized in a steam turb water cycle, report as one plant.	5. If peak demand for 60 minutes is not available, give that which is available, specifying period. 6. If any plant is equipped with combusilons of steam, hydro, internal combustion engine or gas turbine equipment, each should be raporated as a separate plant. However, if the axhaust heat fro the gas turbine is utilized in a steam turbine regenerative feed water cycle, report as one plant.	is not available. Whyng period. Imbusions of engine or gas t od as a separati at for the gas.	urbine s Ged	
	Name of Plant	Year	Installed Capacity Name Plate	Peak Demand KW	Net Generation Excluding Statlon	Cost of Plant	Plant Cost Per KW Inst.	Production Expenses Exclusive of Depreciation and Taxes (Omit Cents)	Expenses Depreciation axes ents)		Kind	Fuel Cost Per KWH Nat Generation (Conts)
<u>₽</u> 2	(a)	Const. (b)	Rating - KW (c)	(60 Mln.) (d)	Ose (e)	(Omit Cents) (f)	Capacity (a)	Labor (h)	lan ₃	Other	Fuel	0.00
- 0 6 4 6 6 7 8 6 0 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A								·			
88		TOTALS										

TRANSMISSION LINE STATISTICS

Report information concerning transmission line as indicated below.

Designation		T	·	T	Type of	Longth /	Tele Miles	N	
Line From To (b) (c) (c) (d) (ine Designated (s) (f) (ine Designated (s) (f) (ine Designated (s) (f) (ine Designated (s) (f)		Des	ionation	Operating		Co Structures of	On Characterist of	Number	Size of
No. (a) (b) (c) (d) (e) (f) (g) (f) (g) (f) (g) (f) (g) (f) (g) (f) (g) (f) (g) (f) (g) (f) (g) (f) (g)	line								
1 Salerm Village-13 Sub Classer Village-13 Sub Village-13 Sub Village-13 Sub Village-13 Sub Village-13 Sub Clifton Sub 13.2 KV Wood Pole 1.40 Village-13 Sub Clifton Sub 13.2 KV Wood Pole 1.40 Village-13 Sub Clifton Sub 13.2 KV Wood Pole 1.30 ** 6 Village-13 Sub Clifton Sub 13.2 KV Wood Pole 1.30 ** 7 Village-13 Sub Clifton Sub 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.2 KV Wood Pole 1.30 ** 13.3 ** 14.1 ** 15.1 ** 16.1 ** 17.1 ** 18.1 ** 19.2 ** 20.1 ** 21.2 ** 22.3 ** 23.3 ** 34.4 ** 35.6 ** 36.3 ** 39.3 ** 39.3 ** 40.4 ** 41.4 ** 42.4 ** 43.4 ** 44.4 ** 44.4 ** 45.4 ** 46.4 ** 47.4 ** 48.4 ** 48.4 ** 49.4 **		1			3			1	
2 Salem Willage-13 Sub Village-5 Sub Village-5 Sub Village-5 Sub Village-5 Sub Village-5 Sub Village-5 Sub Ciffon Sub 13.2 KV Wood Pole Simple Village-13 Sub Ciffon Sub 13.2 KV Wood Pole Village-13 Sub Commercial Sub Simple Village-13 Sub Villa			Village-13 Sub	22 9 KV	Wood Pole		(1)	(g)	(n)
3 Village-13 Sub Village-13 Sub Cliffon Sub 13.2 KV Village-13 Sub Cliffon Sub 13.2 KV Village-13 Sub Creesy St 13.2 KV Village-13 Sub Creesy St 10 Creesy St 10 Creesy St 11 12 KV Village-13 Sub Creesy St 10 Creesy St 11 12 KV Village-13 Sub Creesy St 13.2 KV Vill									
4 Village-13 Sub Cilfton Sub 13.2 KV Wood Pole Village-13 Sub Beacon Sub 13.2 KV Wood Pole Village-13 Sub Beacon Sub 13.2 KV Wood Pole Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub Commercial Sub 13.2 KV Village-13 Sub 1.90 Village-13 Sub Village-									
5 Village-13 Sub Clifton Sub 13.2 KV Wood Pole 1.30 * Village-13 Sub Creesy St 13.2 KV Underground 1.90 Village-13 Sub Creesy St 13.2 KV Underground 1.90 Village-13 Sub Creesy St 13.2 KV Underground 1.90 Village-13 Sub Creesy St 13.2 KV Underground 1.90 Village-13 Sub Creesy St 13.2 KV Underground 1.90 Village-13 Sub Creesy St Village-13 Sub Vill							· .		
S Wilage-13 Sub Commercial Sub 13.2 kV Wood Pole Underground 1.90 Underground						1.40	240*		
7 Village-13 Sub 8 Village-13 Sub 9 Creesy St 9 Creesy St 10 Creesy St 11 12 2 13 14 15 16 16 17 18 19 19 20 11 22 22 23 24 24 25 26 27 28 29 30 31 31 32 33 34 35 36 37 38 39 39 40 41 42 42 43 44 45 46 17 18 18 18 18 18 18 18 18 18 18 18 18 18						·			
8 Village-13 Sub Creesy St 13.2 kV Underground 1.01 9.7 * 10 Creesy St Commercial Sub Beacon Sub 13.2 kV Wood Pole Wood Pole 11					L	190	1.50		
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26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46			•			,			
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45 46 47 TOTALS 6.85 5.37 *	43		.				ĺ		
46 47 TOTALS 6.85 5.37 *]		ŀ		
47 TOTALS 6.85 5.37.*				ĺ		1			
					j				
* where other than 60 cycle, 3 phase, so indicate.					TOTALS	6.85	5.37 *		
		where other that	an 60 cycle, 3 phase	e, so indicate).				

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Annual Report of the Town of Marblehead

Pag	Page 68	Annual Report of the Town of Marblehead	Town of	Warblehead	-				Year Ende	Year Ended December 31, 2016	r 31. 2016
							SUBSTATIONS	LIONS			
 Ref	 Report below the information called for concerning substations of the 	ncerning substations of the	4. Indica	ate in column (b)	the functions	4. Indicate in column (b) the functional character of each substation, designating	station, designating	name of lessor, da	name of lessor, date and period of lease and annual rent. For any	ease and annu	al rent. For any
respon	respondent as of the end of the year.		whel	her transmission	ı or distributia	whether transmission or distribution and whether attended or unattended.	or unattended.	substation or eq	substation or equipment operated other than by reason of sole	other than by r	eason of sole
2. Sut	Substations which serve but one industrial or street railway customer	or street railway customer	5. Shov	/ in columns (i), (J), and (k) sp	5. Show in columns (i), (j), and (k) special equipment such as rotary converters,	rotary converters,	ownership or leas	ownership or lease, give name of co-owner or other party, explain	-owner or othe	r party, explain
should	should not be listed hereunder.		rectifiers, co	ondensers, etc. a	nd auxiliary e	rectifiers, condensers, etc. and auxiliary equipment for increasing capacity.	capacity.	basis of sharin	basis of sharing expenses of other accounting between the	er accounting t	etween the
3 Sut	3. Substations with capacities of less that 5000 kva, except those serving	30 kva, except those serving	6. Designa	re substations or	major items	 Designate substations or major items of equipment leased from others, jointly 	m others, jointly	parties, and state amounts and accounts affected in respondent's	nounts and accoun	ts affected in r	s,tuepuodse.
custon	customers with energy for resale, may be grouped according to functional	uped according to functional	owned with	others, or operat	ed otherwise	owned with others, or operated otherwise than by reason of sole ownership by	ownership by	books of account. Specify in each case whether lessor, co-owner	Specify in each cas	e whether less	or, co-owner
charac	character, but the number of such substations must be shown.	s must be shown.	the respond	ent. For any sut	station or eq	the respondent. For any substation or equipment operated under lease, give	lease, give	or other party is an associated company.	associated compar	<u></u>	
		refored		offe//	-			•	Convers	Conversion Apparatus and	tus and
	Name and Location	Olean Backer		Acitage	200	Capacity of	Number of	Number of	Spe	Special Equipment	
Line	of Substation	Substation	Drimory	Secondary	Tortion	(In Seption)		Spare	i ype or	Number	lotai
S O	(a)	(q)	(O)		(e)	(iii Service)	III Service	ranstormers (h)	meutinb=	of Units	Capacity
•-	1 Clifton Substation	Distribution	13,200	L		18.700	2	HNON	HON	NO.	(A)
	2 off Ames Road	Unattended					ı		1	2	
	3 Beacon Substation	Distribution	13,200	4,160		5,000	τ-	II NO	HNON	III C	ENCN
7	4 off Woodfin Terrace	Unattended						!		<u> </u>	
	5 Commercial Substation	Distribution	13,200	4,160		8,000	2	NONE	NON	HNCN	HNCN
	6 off Commercial St	Unattended								}	1
. ~	7 Village-5 Substation	Distribution	22,900	4,160		30,000	23	NONE	NONE	NONE	NON
	s off Village St	Unattended								!	
<u></u>	Villa	Distribution	22,900	13,200		30,000	2	NONE	NONE	NON	NONE
6	off Village St	Unattended									!
-											
~	5										
	<u> </u>									·	
4	4										
<u>र</u> (-									
<u> </u>											
) ·						•					
· 6											
- 5	0										
3 5											
22	- 01										
23											
24	<u>.</u>										
25											
₂ 6					TOTALS	91,700	6	NONE	NONE	NON	NONE

OVERHEAD DISTRIBUTION LINES OPERATED

Line				Length (Pole Miles	3)
No.			Wood Poles	Steel Towers	Total
	Miles - Beginning of Year		88,129.00		88,129.00
2	Added During Year		0.00		0.00
	Retired During Year		0.00		0.00
4	Miles – End of Year		88,129.00	0.00	88,129.00
5					
6				•	
7	A.C. 3 Phase & 1 Phase	60 Cycles	2400/4160		
8			120/240		
9			120/208		
10			277/480		
11	·				
12	· .				
13					
14					
15					•

ELECTRIC DISTRIBUTION SERVICES, METERS AND LINE TRANSFORMERS

				Line Tra	ansformers
Line No.	Item	Electric Services	Number of Watt-hour Meters	Number	Total Capacity (kva)
	Number at beginning of year:	8,327	10,395	1,209	53,995.5
17	Additions during year				
18	Purchased			19	` 687.5
19		9			
20	Associated with utility plant acquired				
21	Total Additions	9	0	19	687.5
22	Reductions during year:				
23	Retirements	0	5	0	0.0
24	Associated with utility plant sold				
25	Total Reductions	0	5	0	0.0
26	Number at end of year	8,336	10,390	1,228	54,683.0
27	In stock		102	106	7,487.0
28	Locked meters on customers' premises		23		•
29	Inactive transformers on system	•	ĺ	ļ	
30	In customers' use		10,242	1,122	47,196.0
31	In company's use		23		•
32	Number at end of year		10,390	1,228	54,683.0

≀nnua	Report of the Town of Marblehead		Year	Ended Dece	mber 31, 2016		Page 70
	CONDUIT, UNDERGROUN	D CABLE AND SUBMAR	INE CABLE - (D	istribution S	ystem)		
	Report below the information called for concerni	ng conduit, underground of	able, and subma				
Line	Designation of Lindanson and Contain	Miles of Co		Undergrou			arine Cable
LINE	Designation of Underground System	(All Sizes	and Types)	Miles *	Operating Voltage	Feet *	Operating
No.	(a)		(b)	(c)	(d)	(e)	Voltage (f)
1	Balance 12/31/2002:	·	25.606	57.36	(4)	(0)	
	Additions 2003;		20.000	01.50		•	
				0.84			
	Additions 2004:			0.04			
	Green Street	4" muo v. 0	0.40	ĺ			
	Additions 2005:	4" pvc x 2	0.18				
	School Street	4" pvc x 2	0.03	0.09			
	Essex Street	4" pvc x 2	0.03	0.09		j	
	Humphrey Street	4" pvc x 2	0.08	0.24		1	
	Highland Project	5" pvc x 2	0.29	0.87		ŀ	
11	Clipper Way	5" pvc x 2	0.13	0.13		ľ	
12	Harvard Street	4" pvc x 2	0.04	0.04		ł	
13	Thomas Circle	4" pvc x 2	0.03	0.03		İ	
14	Additions 2006:	1				-	
15	Leggs Hill Road	4" pvc x 2	0.11	0.11		J	
	Tower School	4" pvc x 2	0.07	0.07			
	Additions 2007:	T PVC X Z	0.07	0.07		_	
	YMCA	47	0.40	0.40			
1		4" pvc x 2	0.19	0.19			
	Westminster	5" pvc x 2	0.11	0.11	1		
	Additions 2008:		- 1		į	1	
	Highland Project	5" pvc x 2	0.10	0.30			
22	Causeway	5" pvc x 4	0.98				
23	Additions 2009:		ļ				
24	Village School	4" pvc x 2	0.09	0.27	ļ		
25	Crowninshield #22	4" pvc x 2	0.06	0.06	ŀ	- 1	
	Additions 2010:	· · ·		,,,,	j		
	Tedesco Country Club	4" pvc x 2	0.04	0.06			
	Stramski's Way	4" pvc x 2	0.21	0.00	[
	Additions 2011:	T PVCX2	0.2.1	0.11			
- 1	National Grand Bank	49 4	0.00		1		
- 1		4" pvc x 1	0.03	0.08	ľ		
	Osborne Bidg Pleasant Street	4" pvc x 1	0.02	0.05			
- 1	Leggs Hill Road	4" pvc x 1	0.03	0.00	+	1	
1	Additions 2012:	·				- 1	
34	Camille Terrace	4" pvc x 1	0.07	0.07			
35	Additions 2013:			1	+		
36	Lincoln Avenue to Woodfin Property	4" pvc x 1	0.03	0.03			
	Additions 2014:			3,33	ŀ	.	
38	Blueberry Road	4" pvc x 2	0.06	0.06		ŀ	
	Additions 2016:	PVCXZ	0.00	0.00		1	
	Captain's Walk Lane	dll man and	0.05	0.05	1		
	• •	4" pvc x 1	0.05	0.05	ĺ		
	Cloutmans Lane	4" pvc x 1	0.03	0.03			
42				1		1	
43					- 1	1	
44						·	
45					ļ		
46]		
47	·						
48				1			
49					ļ		
50				ľ	1		
51	TOT	ALS	28.696	61.34			
2.7							

STREET LAMPS CONNECTED TO SYSTEM Туре Incandescent Mercury Vapor Florescent & Quartz Sodium Line City or Town Total Municipal Other Municipal Other Municipal Other Municipal Other No. (a) (b) (c) (d) (e) **(f)** (g) (h) (i) 1 Marblehead NONE NONE NONE NONE NONE NONE 3 4 TOTALS

RATE SCHEDULE INFORMATION

1. Attach copies of all Filed Rates for General Consumers

2. Show below the changes in rate schedules during year and the estimated increase or decrease in annual revenues predicted on the previous year's operations.

Effective Date	M.D.P.U. Number	Rate Schedule	Annual R	et on Revenues
			Increases	Decrease
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Annual Report of the Town of Marblehead	Year Ended December 31, 2	201 6 Page 81
THIS RETURN IS SIGNED UN	NDER THE PENALTIES OF PERJUR	Y
		Mayor
andrew F. Hadden Andrew F. Hadden		Manager of Electric Light
Michael A. Hull	Commission Chairman	
Walter E. Homan	Commissioner	Selectmen or
Joseph/T. Kowalik Jr	Commissioner	Members of the Municipal
Michael A. Tumulty	Commissioner	Light Board
Michael J. Maccario	Commissioner	
	· ········	

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LEGAL NOTICE

Marblehead Municipal Light Department Notice of Changes to the Schedule of Prices for Electricity

Notice is hereby given by the Marblehead Municipal Light Department of changes to its schedule of prices for electricity as filed with the Massachusetts Department of Public Utilities, April 22, 2011 to become effective June 1, 2011, as follows:

Rate A (MDPU - 66) Residential Service

Basic Monthly Charge

\$ 4.25

All Kilowatt-hours

\$ 0.1425

Rate B (MDPU - 67) Small Commercial Service

Basic Monthly Charge

\$ 5.00

All Kilowatt-hours

\$ 0.15

Rate C (MDPU - 68) Large Commercial Service

Basic Monthly Charge

\$ 10.00

All kilowatts

\$ 5.70

All Kilowatt-hours Minimum Monthly Charge \$ 0.11 \$ 55.00

Rate G (MDPU - 70) Off Peak Water Heating (closed to new customers)

Basic Monthly Charge

\$ 4.25

All Kilowatt-hours

\$ 0.101

Rate F (MDPU - 69) Private Area Lighting

70 W HPS \$ 5.30/Mo 150 W HPS \$ 11.25/Mo 250 W HPS \$ 18.60/Mo

175 W MH \$ 13.65/Mo

250 W MH \$ 20.15/Mo

400 W MH \$ 31.65/Mo

400 W HPS \$ 29.65/Mo

(the following services are closed to new customers)

500 W Q \$ 32.80/M0 175 W MV \$ 12.00/Mo 400 W MV \$ 27.30/Mo

60 W IN 75 W IN

\$ 4.00/Mo \$ 4.95/Mo

1000 W MV \$ 65.50/Mo

150W IN \$ 10.75/Mo

Rate S (MDPU - 71) Domestic Storage Heating (closed to new customers)

Basic Monthly Charge

\$4.25

All Kilowatt-hours

\$ 0.101

Rate EV (MDPU - 62) Electric Vehicle Service

Basic Monthly Charge

\$ 4.25

All Kilowatt-hours

\$ 0.101

Rate HPA (MDPU - 73) Hydro Power Adjustment

Applicable to MDPU - 66

No Change

Rate PPA (MDPU - 74) Purchase Power Adjustment

The Purchase Power Adjustment (PPA) is applicable to all filed retail rate schedules excepting MDPU - 73.

Rate PV (MDPU - 75) Photovoltaic Credit

Basic Monthly Charge (If separate meter and socket) \$ 0.00

All Kilowatt-hours received

\$ 4.25

from the customer

\$0.099

Rate CPP (MDPU - 76) Critical Peak Pricing

	<u>Winter</u> Sep – May	<u>Summer</u> Jun - Aug
Basic Monthly Charge	\$ 4.25	\$ 4.25
Non CPP kilowatt-hours	\$ 0.1425	\$ 0.09
CPP kilowatt-hours	N/A	\$ 1.05

Issued:

April 22, 2011

Effective: June 01, 2011

MDPU - 66

Cancels

MDTE - 56

Rate A

Available for lighting, space heating, water heating and all other domestic uses in a single private dwelling or individual apartment.

Monthly Charge

Basic Monthly Charge All kilowatt-hours

\$ 4.25

per Month

\$ 0.1425

per kilowatt-hour

asonal Service

\$ 4.25

per Month

Off-Peak Water Heating

Applicable to customers currently serviced under this rate; the Marblehead Municipal Light Department will make no further installations under this rate.

Basic Monthly Charge

\$ 4.50

per Month

All kilowatt-hours

\$ 0.1425

per kilowatt-hour

Terms and Conditions

The Department's terms and conditions in effect from time to time where not inconsistent with any specific provision of this tariff are part of this tariff.

All kilowatt-hour usage under this tariff is subject to the Purchase Power Adjustment Clause,

All Terms and Conditions of this tariff are subject to applicable law

Marblehead Municipal Light Department 80 Commercial Street

P.O. Box 369

Marblehead, Massachusetts 01945

Jolly, General Manage

Issued:

April 22, 2011

Effective:

June 01, 2011

Cancels

MDPU - 67 MDTE - 57

Rate B

Available for all purposes other than domestic uses where the monthly demand does not equal or exceed 30 kilowatts for three consecutive months

Monthly Charge

Basic Monthly Charge All kilowatt-hours

\$ 5.00

per Month

\$ 0.15

per kilowatt-hour

Seasonal Service

\$5.00

per Month

Temporary Power

\$ 30.00

per installation

Terms and Conditions

The Department's terms and conditions in effect from time to time where not inconsistent with any specific provision of this tariff are part of this tariff.

All kilowatt-hour usage under this tariff is subject to the <u>Purchase Power Adjustment Clause</u>.

All Terms and Conditions of this tariff are subject to applicable law

Marblehead Municipal Light Department 80 Commercial Street P.O. Box 369 Marblehead, Massachusetts 01945

Robert V Joliv

, General

Issued:

April 22, 2011

Effective:

June 01, 2011

Cancels

MDPU - 68 MDTE - 58

Rate C

Available for all purposes other than domestic uses where the monthly demand equals or exceeds 30 kilowatts for three consecutive months, provided that all electricity to any customer is delivered at a single location and furnished through one service and one meter unless any alternative electrical connection is determined by the Department to be more convenient

Monthly Charge

Monthly Demand Charge \$ 5.70 per kilowatt			per Month per kilowatt per kilowatt-hou
--	--	--	---

Minimum Monthly Charge

\$ 55.00

per Month

Measurement of Demand

Demand shall be the highest 15 minute kilowatt registration occurring in the billing month

Terms and Conditions

The Department's terms and conditions in effect from time to time where not inconsistent with any specific provision of this tariff are part of this tariff.

All kilowatt-hour usage under this tariff is subject to the <u>Purchase Power Adjustment Clause</u>, MDPU - 74

All Terms and Conditions of this tariff are subject to applicable law

The minimum term of service under this tariff is one year

Marblehead Municipal Light Department 80 Commercial Street P.O. Box 369 Marblehead, Massachusetts 01945

Robert V. Jolly

, General Manager

Issued:

April 22, 2011

Effective: June 01, 2011

Cancels

MDPU - 69

MDTE - 59

Rate F

Available for all lighting of private areas provided that any and all poles meet Department standards and are

Equipment and Service Provided

The Department will furnish and install a standard street light fixture with necessary wiring and will replace bulbs and furnish the electricity to operate the lights during the same daily hours as the streetlights. The customer is obligated to notify the Department when a bulb is broken or burnt out. No credit will be given for the time a unit is inoperative because of lack of notification.

	Approximate Lumens	Monthly kWh	Basic Monthly Charge
High Pressure Sodium			Estimate Charge
70 Watt			
150 Watt	5220	30	\$ 5.30
250 Watt	8850	61	\$ 11.25
400 Watt	24750	110	\$ 18.60
	45000	160	\$ 29.65
Metal Halide			Ψ 23.03
175 \\(\(\) \\		•	
175 Watt	10350	70	
250 Watt	17000	70	\$ 13.65
400 Watt	28800	100	\$ 20.15
		160	\$ 31.65
Mercury Vapor (existing custome	ers only – no new installatior	ns)	
175 Watt Street Type	•		
400 Watt Flood Type	6800	72	\$ 12.00
1000 Watt Flood Type	18400	154	\$ 27.30
1000 Trail 1000 Type	46000	374	\$ 65.50
Quartz lodine (existing customer	'S ONLY - DO neur installation	- · ·	φ 05.50
	10 HEW INSTANTANTONS	5)	•
500 Watt Flood Type	10500		
		170	\$ 32.80
Incandescent (existing custome	rs only – no new installations	s)	
60 Watt		•	
75 Watt	750	21	\$ 4.00
150 Watt	9 50	26	\$ 4.95
.00 11411	2050	52	\$ 4.95 \$ 10.75
and Conditions		02	φ 10.75

Terms and Conditions

The Department's terms and conditions in effect from time to time where not inconsistent with any specific provision

All kilowatt-hour usage under this tariff is subject to the Purchase Power Adjustment Clause, MDPU - 74

Marblehead Municipal Light Department 80 Commercial Street P.O. Box 369

Marblehead, Massachusetts 01945

Issued:

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Effective:

June 01, 2011

Cancels

MDPU - 70 MDTE - 60

Rate G - (Existing Customers - No New Installations)

Available for electricity used for heating water in approved storage type tanks of not less than 50 gallons capacity, where conditions permit supplying such water heating during off-peak hours without requiring additional distribution investment by the Department, subject to the following conditions:

- 1) Heating element capacity shall be not less than 4500 Watts
- 2) The customer shall wire to the water heater using approved cable or conduit and provide a trough with wire to a separate meter socket. The meter and time control will be supplied by the Department
- 3) Service will be supplied under this tariff only during such hours as the Department may determine from time to time to meet conditions affecting the spare capacity available for this service but, in any event, not less than eighteen (18) hours daily

Monthly Charge

Basic Monthly Charge

\$4.25

per Month

All kilowatt-hours

\$ 0.101

per kilowatt-hour

Terms and Conditions

The Department's terms and conditions in effect from time to time where not inconsistent with any specific provision of this tariff are part of this tariff.

All kilowatt-hour usage under this tariff is subject to the <u>Purchase Power Adjustment Clause</u>, MDPU - 74

All Terms and Conditions of this tariff are subject to applicable law

Marblehead Municipal Light Department 80 Commercial Street P.O. Box 369 Marblehead, Massachusetts 01945

Robert V. Jolly, General Mar

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MDPU - 71

Cancels

MDTE - 61

Rate S - (Existing Customers - No New Installations)

Available for electricity used for electric thermal storage in approved storage heat tanks in a domestic single private dwelling or individual apartment during off-peak hours without requiring additional distribution investment by the Department, subject to the following conditions:

- The customer shall wire to the storage heater using approved cable or conduit and 1) provide a trough with wire to a separate meter socket. The meter and time control will be supplied by the Department
- Service will be supplied under this tariff only during such hours as the Department may 2) determine from time to time to meet conditions affecting the spare capacity available for this service but, in any event, not less than twelve (12) hours daily

Monthly Charge

Basic Monthly Charge

\$4.25

per Month

All kilowatt-hours

\$ 0.101

per kilowatt-hour

Terms and Conditions

The Department's terms and conditions in effect from time to time where not inconsistent with any specific provision of this tariff are part of this tariff.

All kilowatt-hour usage under this tariff is subject to the Purchase Power Adjustment Clause.

All Terms and Conditions of this tariff are subject to applicable law

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Jolly, General/Manage

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MDPU - 72 MDTE - 62

Rate EV

Available for electricity used for the sole purpose of charging and/or re-charging of an all electric vehicle owned and operated by the customer of record. The vehicle must be registered as a private or commercial vehicle in the Commonwealth of Massachusetts, subject to the following conditions:

- The customer shall be responsible for supplying an approved separate service and a Department approved meter socket for the installation of an interruptible meter and control switch. The location of the service and meter socket must be adjacent to the existing location unless otherwise determined by the Department. All installations must be approved by the local inspector of Wires
- Service will be supplied under this tariff will be subject to interruption at the sole discretion of the Department. It is the intent of the department, however, to have electric service available for use under this tariff between the hours of 11:00 P.M. and 7:00 A.M. daily

Monthly Charge

Basic Monthly Charge

\$ 4.25

per Month

All kilowatt-hours

\$ 0.101

per kilowatt-hour

Terms and Conditions

The Department's terms and conditions in effect from time to time where not inconsistent with any specific provision of this tariff are part of this tariff.

All kilowatt-hour usage under this tariff is subject to the <u>Purchase Power Adjustment Clause</u>, MDPU - 74

All Terms and Conditions of this tariff are subject to applicable law

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MDPU - 73

Cancels

MDTE - 63

Hydro Power Adjustment Clause

The hydro power cost savings adjustment (credit) is applicable only to residential rate schedule A, MDPU 66.

The calculated power supply cost savings to the Department from its allocation of hydroelectric power from the Power Authority of New York (NYPA) shall be credited to residential customers on Schedule A as governed by Federal and State regulations. The savings per household shall be shown as a "Hydro Credit" item on the bill.

The determination of the Hydro Credit shall be made by calculating, in dollars, the reduction in the monthly power supply and transmission cost which has resulted from the Department's allocation of NYPA energy and capacity in the second preceding month to the current billing month.

Terms and Conditions

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All Terms and Conditions of this tariff are subject to applicable law

Marblehead Municipal Light Department 80 Commercial Street P.O. Box 369 Marblehead, Massachusetts 01945

Robert V. Jolly, General

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MDPU - 74

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MDTE - 64

Purchase Power Adjustment Clause

The Purchase Power Adjustment Clause is applicable to all filed retail schedules excepting MDPU - 73.

The Purchase Power Adjustment is determined by calculating the total cost of power to the Department in the second preceding billing month, in dollars and \$/kilowatt-hour. If the calculated \$/kilowatt-hour are greater or less the embedded power cost recovered in each retail tariff, the Department may add a charge or credit respectively, on a per kilowatt-hour basis, to each kilowatt-hour of metered consumption in the billing month. The calculation is as follows:

Purchase Power Adjustment ($\frac{h}{h}$) = [(A / B) - C]

Where:

- The total dollars of all purchased power and transmission bills adjusted for A =NYPA power pursuant to MDPU - 73, Accounts 555, 557 and 565;
- The forecast of total kilowatt-hours to be billed in the period; B =
- The average cost of power embedded in all applicable rate schedules in \$/kWh.

Terms and Conditions

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All Terms and Conditions of this tariff are subject to applicable law

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MDPU - 75

Cancels

New

PV Credit

The photovoltaic (PV) credit is applicable to solar arrays of 10 kW or less.

The customer shall be responsible for supplying a Department approved meter socket 1) with separate disconnect switch. The Department will install a bi-directional meter to measure the delivered and received kilowatt-hours. The Department may charge customers for costs associated with installing additional meter requirements.

Monthly Charge

Basic Monthly Charge

\$ 0.00

(If separate meter and socket)

\$ 4.25 per Month

Monthly Credit

All kilowatt-hours received from the customer

\$ 0.099 per kilowatt-hour

Terms and Conditions

The Department's terms and conditions in effect from time to time where not inconsistent with any specific provision of this tariff are part of this tariff.

All kilowatt-hour usage under this tariff is subject to the Purchase Power Adjustment Clause, MDPU - 74

All Terms and Conditions of this tariff are subject to applicable law

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Cancels

MDPU - 76

New

Rate CPP

Available for lighting, space heating, water heating and all other domestic uses in a single private dwelling or individual apartment. The Critical Peak Period will only occur between the hours of 12pm and 6pm on twelve non-holiday weekdays during the months of June, July, and August.

Monthly Charge	<u>Winter</u> Sep – May	<u>Summer</u> Jun - Aug
Basic Monthly Charge	\$ 4.25 per Month	\$ 4.25 per Month
Non CPP kilowatt-hours	\$ 0.1425 per kilowatt-hour	\$ 0.09 per kilowatt-hour
CPP kilowatt-hours	N/A	\$ 1.05 per kilowatt-hour

Terms and Conditions

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All kilowatt-hour usage under this tariff is subject to the <u>Purchase Power Adjustment Clause</u>, MDPU - 74

All Terms and Conditions of this tariff are subject to applicable law

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